

Concordia University St. Paul

DigitalCommons@CSP

CUP Ed.D. Dissertations

Concordia University Portland Graduate
Research

Fall 10-11-2017

Dialogic Interactions that Support Learning and Motivation: A Phenomenological Study of High School Teachers' Experiences During Reflective Dialogue

Sandra Metzger

Concordia University - Portland, sandra.metzger@indwes.edu

Follow this and additional works at: https://digitalcommons.csp.edu/cup_commons_grad_edd



Part of the [Educational Leadership Commons](#), and the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Metzger, S. (2017). *Dialogic Interactions that Support Learning and Motivation: A Phenomenological Study of High School Teachers' Experiences During Reflective Dialogue* (Thesis, Concordia University, St. Paul). Retrieved from https://digitalcommons.csp.edu/cup_commons_grad_edd/124

This Dissertation is brought to you for free and open access by the Concordia University Portland Graduate Research at DigitalCommons@CSP. It has been accepted for inclusion in CUP Ed.D. Dissertations by an authorized administrator of DigitalCommons@CSP. For more information, please contact digitalcommons@csp.edu.

Fall 10-11-2017

Dialogic Interactions that Support Learning and Motivation: A Phenomenological Study of High School Teachers' Experiences During Reflective Dialogue

Sandra Metzger
Concordia University - Portland

Follow this and additional works at: <https://commons.cu-portland.edu/edudissertations>



Part of the [Educational Leadership Commons](#), and the [Teacher Education and Professional Development Commons](#)

CU Commons Citation

Metzger, Sandra, "Dialogic Interactions that Support Learning and Motivation: A Phenomenological Study of High School Teachers' Experiences During Reflective Dialogue" (2017). *Ed.D. Dissertations*. 80.
<https://commons.cu-portland.edu/edudissertations/80>

This Open Access Dissertation is brought to you for free and open access by the Graduate Theses & Dissertations at CU Commons. It has been accepted for inclusion in Ed.D. Dissertations by an authorized administrator of CU Commons. For more information, please contact libraryadmin@cu-portland.edu.

Concordia University–Portland

College of Education

Doctorate of Education Program

WE, THE UNDERSIGNED MEMBERS OF THE DISSERTATION COMMITTEE
CERTIFY THAT WE HAVE READ AND APPROVE THE DISSERTATION OF

Sandra K. Metzger

CANDIDATE FOR THE DEGREE OF DOCTOR OF EDUCATION

Christopher Maddox, Ph.D., Faculty Chair Dissertation Committee

Jill Bonds, Ed.D., Content Specialist

Cherri Barker, Ed.D., Content Reader

ACCEPTED BY

Joe Mannion, Ed.D.
Provost, Concordia University–Portland

Sheryl Reinisch, Ed.D.
Dean, College of Education, Concordia University–Portland

Marty A. Bullis, Ph.D.
Director of Doctoral Studies, Concordia University–Portland

Concordia University Portland

Dialogic Interactions that Support Learning and Motivation: A Phenomenological Study of High
School Teachers' Experiences During Reflective Dialogue

Sandra K. Metzger

Concordia University–Portland

College of Education

Dissertation submitted to the Faculty of the College of Education

in partial fulfillment of the requirements for the degree of

Doctor of Education in

Teacher Leadership

Christopher Maddox, Ph.D., Faculty Chair Dissertation Committee

Jill Bonds, Ed.D., Content Specialist

Cherrie Barker, Ed.D., Content Reader

Concordia University–Portland

2017

Abstract

When teachers skillfully interact in reflective dialogue, they experience professional learning and motivation. However, teachers' interactional skills are often not data-informed. The purpose of this hermeneutic phenomenological study is to provide descriptive data on (a) how high school teachers experience the dialogic interaction within reflective dialogue, (b) what evidence of learning is present in the interaction, and (c) how self-directed motivation is supported in the interaction. The conceptual framework for this study consists of learning theories from Dewey and Mezirow and the Self-Determination theory of motivation from Deci and Ryan. Three sessions were conducted with two teams of two teachers for a total of eight reflective dialogues. These reflective dialogues were accessed through observations, focus groups, and semi-structured interviews, which were recorded, transcribed, and analyzed using self-designed theory-driven codes and conversation analysis. Participants' own analysis of the data and descriptions of their experiences were included in the findings. The results indicate teachers engage in a process of making meaning of their experiences through exploration, storytelling, and critical reflection of their practices. They experience the need for competency and autonomy, but feel the need for connection most. These needs are met as they give each other the space to reflect and overcome their personal and professional discomfort and challenges together. Specific dialogic interactions that supported teachers' learning and motivation are described. This study also produced evidence of transformation among the participants and could be replicated to facilitate transformational learning among other teachers. Recommendations for further studies are discussed.

Keywords: teachers, reflective dialogue, dialogic interactions, reflective practice

Dedication

This dissertation is dedicated to all the teachers who take time to intentionally engage in reflective dialogue on their practice and to all the school leaders who provide the time and facilitation teachers need for reflective dialogue.

Acknowledgement

I would like to acknowledge the people in my life who helped me reach this goal. First of all, I want to acknowledge Dr. Christopher Maddox, Dr. Jill Bonds, and Dr. Cherri Barker, who invested in me as my committee. Their hours of reading, answering questions, and offering constructive feedback worked! I am blessed to have had the support provided to me by Concordia University: every class, every assignment, every instructor, every step of the way.

I would like to acknowledge my husband, Brad, who encouraged me to pursue my doctorate and has done more than his fair share in our home these last few years. I also want to thank my sons, Travis, Ty, and Taden, who inspire me every day. My favorite title will always be *Mom*. I hope they have learned from me that they can do anything they set their mind to. I also want to acknowledge my parents, Ron and Bernice Farnum, who have believed in me my whole life and whose prayers are powerful. My in-laws, Mike and Judy Metzger, and my brother and his family, Jim and Samantha Farnum, have also been a constant support.

I would also like to acknowledge the many friends and colleagues who have inspired and supported me on this journey. There were friends who stepped in to give my children rides and let them hang out in their homes. There were colleagues who listened to my ideas and pushed me to consider new perspectives. I also have a new set of colleagues who have welcomed me and given me their full support.

Finally, I must acknowledge my Heavenly Father. I am only beginning to understand how deep is His love for me. I am thankful that He is working out his masterpiece in me.

Table of Contents

Abstract	ii
Dedication	iii
Acknowledgement	iv
List of Tables	viii
Chapter 1: Introduction to the Study.....	1
Background	2
Problem Statement	3
Purpose of the Study	3
Research Questions	3
Conceptual Framework	4
Nature of the Study	5
Definitions.....	8
Assumptions.....	11
Scope and Delimitations	11
Limitations	12
Significance.....	12
Summary	13
Chapter 2: Literature Review.....	14
Literature Search Strategy.....	15
Conceptual Framework	16
Review of the Literature	26
Summary and Conclusions	68

Chapter 3: Research Method.....	76
Research Questions	77
Research Design and Rationale	77
Role of the Researcher	87
Methodology	89
Participant Selection Logic	92
Procedures for Recruitment, Participation, and Data Collection	94
Instrumentation	101
Data Analysis Plan	106
Trustworthiness	116
Summary	123
Chapter 4: Data Analysis and Results.....	128
Introduction.....	128
Description of the Sample.....	129
Research Methodology	138
Research Results	158
Evidence of Trustworthiness.....	183
Summary	184
Chapter 5: Discussion, Conclusions, and Recommendations.....	185
Introduction.....	185
Summary of the Results	185
Discussion of the Results	188
Discussion of the Results in Relation to the Literature.....	201

Limitations	210
Implications of the Results.....	210
Transformation of Society	215
Recommendations for Further Research.....	215
Conclusion	218
References	220
Appendix A: Individual Professional Development Plan	237
Appendix B: Peer Review Frequently Asked Questions	240
Appendix C: Research Participant Consent Form	241
Appendix D: Participant Instructions for Reflective Session 1	246
Appendix E: Participant Instructions for Reflective Session 2.....	247
Appendix F: Interview Questions for Reflective Session 3	248
Appendix G: District Permission Request	251
Appendix H: District Approval Letter	255
Appendix I: Participant Recruitment E-mail	256
Appendix J: Typical Peer Review Survey	258
Appendix K: Self-Designed Theory-Driven Codes	264
Appendix L: Transcription Conventions Guidelines for Conversation Analysis	268
Appendix M: Statement of Original Work	269

List of Tables

Table 1. Demographics of Population and Sample.....	132
Table 2. Typical Peer Review Statistics	134
Table 3. Data Collection	1399

Chapter 1: Introduction to the Study

In a profession where the stakes are high, teacher collaboration has been identified as the key to improving professional expertise and increasing student achievement (Hattie, 2015).

Reflective dialogue is a collaborative practice that offers teachers the potential for transformational learning and creates the conditions for staying motivated. Structured collaborative reflection fosters an environment for an optimal professional learning experience, because teachers can critically reflect on their instructional practices and perspectives. Additionally, reflective dialogue can meet teachers' needs for relationship, mastery, and autonomy, resulting in high levels of self-directed motivation.

Although reflective practices are an expected part of teachers' on-going professional learning, teachers' skill in reflective dialogue is often assumed and ineffective (Marzano, 2010; Weiss, Pelegrino, & Frederick, 2017). Secondary teachers experience less success with reflective dialogue (Seashore Louis & Lee, 2016) and often face ethical dilemmas regarding their peers, such as honesty and confidentiality, when asked to engage in reflective practices for professional development (Finefter-Rosenbluh, 2016). Researching the phenomenon of reflective dialogue can add to the understanding of how reflection works; how dialogic interactions support learning and motivation for high school teachers.

Within this chapter, I will provide the introduction to my research. The chapter begins by describing the background of reflective practices, specifically reflective dialogue, followed by a description of the problem addressed in the study. The purpose of this study is identified and each research question is listed. An introduction of the conceptual framework provides a brief description of theorists' perspectives on learning and motivation. The nature of the study and summary of the methodology briefly introduce how I conducted this study. Included in this

chapter are definitions of key terms to facilitate the reader's understanding of the topic. In the section about assumptions, my underlying expectations about the study and the justification for assuming them are identified. This chapter also includes the scope and delimitations of the study to establish clear boundaries. In the section about limitations, the potential weaknesses of the study are presented. In conclusion, I discuss the significance of my study by proposing how researching reflective dialogue provides data in the form of dialogic interactions.

Background

Reflection is a key concept in both Eastern and Western philosophies (Marzano, 2010). As a specific form of reflection, reflective dialogue is an ancient practice: "Come now, and let us reason together, saith the LORD" (Isaiah 1:18, King James Version). In Plato's *The Apology* (420-347 BCE), Socrates is credited for stating "an unexamined life is not worth living," which is the basis for the Socratic discussion method. Reflective dialogue is essential to a democratic society where open debate leads to freedom and social justice (Gigliotti & Dwyer, 2016). Current studies involving reflective dialogue are present in medicine (Hill, Crowe, & Gonsalvez, 2016), entrepreneurialism (Tikkamäki, Heikkilä, & Ainasoja, 2016), community building (Matsuda, 2016), and agriculture (Gandhi, Veeraraghavan, & Toyama, 2016). Dewey (1910) is credited with identifying reflective dialogue as a critical element of learning, prompting studies and discussions in all areas of education. Reflection is currently considered a research-based best practice for all teachers and students.

In schools today, reflective dialogue is a widely-accepted part of teachers' professional learning (Marzano, 2010). As teachers and educational leaders are expected to engage in professional learning with colleagues facilitated by reflective dialogue, an understanding of this interaction is needed. A phenomenological study on reflective dialogue among teachers could

provide insight into the lived experiences of transformational learning, professional competency, personal autonomy, and social connectedness from the perspective of high school teachers.

Problem Statement

When teachers skillfully interact in reflective dialogue as part of their professional learning, they experience learning and support for motivation. Although research data on best practices is available to develop teachers' pedagogical skills, there is a lack of descriptive data to inform the development of their skills in reflective dialogue. Much of the literature on collaborative reflection relies on self-reported data to provide insights into the nature and benefits of reflection. However, few authors describe how teachers' dialogic interactions facilitate the experiences of learning and motivation. The problem is teachers' interactional skills in reflective dialogue are not data-informed.

Purpose of the Study

The purpose of this hermeneutic phenomenological study is to describe the dialogic interaction in reflective dialogue among high school teachers. I include participants in the interpretation of their lived experiences in order to generate detailed data describing the dialogic interactions that create the conditions for self-determined motivation and result in learning. By analyzing multiple reflective dialogues using self-designed theory-driven codes and conversation analysis, this study provides a description of how teachers experience dialogic support for learning and self-directed motivation when engaged in reflective dialogue with their peers.

Research Questions

1. How do high school teachers experience dialogic interactions within reflective dialogue?
2. What evidence of learning is present in the dialogic interaction of reflective dialogue among high school teachers?

3. How is self-directed motivation supported in the dialogic interaction of reflective dialogue among high school teachers?

Conceptual Framework

The conceptual framework guides my research and analysis. Theorists Dewey (1933) and Mezirow (1991) provide the basis for an understanding of learning through reflective dialogue. Deci and Ryan (1985) provide an understanding of teachers' needs for autonomy, relatedness, and competency to experience self-directed motivation. This section provides an introduction to my conceptual framework.

Dewey (1933) proposed the primary function of reflection is to learn from experience and act intentionally based on that learning. He believed true reflection happens through intentional interaction with others in a systematic process of problem solving. Dewey argued the result of reflection is a certainty of belief grounded in evidence. He claimed this process of critical inquiry both resulted in learning and continuous motivated learning. Language is a critical part of reflection because it is the means by which meaning is made, but it is also material on which to reflect (Dewey, 1944).

Mezirow (1991) also believed learning required intentional reflection. He believed the key to transformational learning is critical discourse, by which adults examine their personal orientations regarding perception, knowledge, beliefs, feelings, and actions. This process of self-assessment or critical reflection allows for the construction of new knowledge and meaning. Mezirow (1991) proposed adults experience transformational learning as they critically reflect on the process of reflection. Like Dewey (1933), Mezirow believed rational discourse was how transformation developed; through the language of discourse, reflection becomes action.

Mezirow (2000) described the goal of transformational learning as becoming more autonomous over the purposes, values, feelings, and meanings an individual has.

Deci and Ryan (1985) add to my conceptual framework by providing a perspective on how adults can be supported to engage in the kind of learning described by Dewey (1933) and Mezirow (1991). Deci and Ryan claimed people are motivated to grow and develop when they experience competency, autonomy, and relatedness to others. They call this kind of motivation self-directed, because the person internalizes the value of an activity. For Ryan and Deci (2016) motivation is experienced as a continuum from amotivation to autonomous. Autonomous motivation empowers adults because they can regulate both intrinsic and extrinsic factors of motivation associated with an activity in a self-directed way. Deci and Ryan's (1985) Self-determination Theory provides an understanding of how adults can experience self-directed motivation within the practice of reflective dialogue.

In Chapter 2, more details are provided about my conceptual framework based on theorists Dewey (1933), Mezirow (1991), and Deci and Ryan (1985). My conceptual framework guided the review of the literature, which focused on how reflective dialogue engages teachers in learning and serves to meet the psychological needs of belonging, autonomy, and mastery; thus, supporting teachers' motivation to engage in learning. The conceptual framework also guided my research design, which is introduced in the following section and detailed in Chapter 3.

Nature of the Study

Within this phenomenological study, I explore the interaction of reflective dialogue among high school teachers. Walsh and Mann (2015) discussed the lack of research that provides insider accounts of reflective dialogue and argued this has resulted in reflective practices which are not based on best practice. Van Kruiningen (2013) claimed there is a need

for micro-analytical research which produces findings on how and why dialogue works as an instrument for producing teacher learning and educational change. Nelson and Sadler (2013) argued for a qualitative research approach which examines the purpose and value of reflection, as well as the ways in which reflection is operationalized. In this study, transcript data from multiple reflective dialogues is gathered through observations, focus groups, and semi-structured interviews. I analyzed the interactive language using conversation analysis and theory-based coding and engaged participants in the interpretation of their interactional experiences in the reflective dialogues.

A qualitative study of the phenomenon of reflective dialogue allowed for data collection through a process of meaning-making between the researcher and the participants, which produced a description of the essence of the dialogic interactions (Moustakas, 1994). Researching the language *of* reflection can increase understanding of the specific words, phrases, and questions within the interaction that lead to learning and generate factors of motivation (Mann & Walsh, 2013). Researching the language *for* reflection provides insight into the linguistic and interactional features of reflective dialogue (Hilden & Tikkamäki, 2013; Mann & Walsh, 2013). A hermeneutic phenomenological approach allowed me to focus on and explore the experiences of the participants in reflective dialogue.

Summarization of the Methodology

Naturalistic observations, focus groups, and semi-structured interviews were used as qualitative methods for the study of reflective dialogue. Volunteer participants were recruited from among established peer review teams. Two peer review teams of two teachers provided a sample. I designed three sequential reflective sessions as settings for reoccurring dialogues among high school teachers. As described below, each of these sessions used designed

procedures to generate interactional data which were transcribed and analyzed. From these data sets, I was able to provide a comprehensive description of both the language for and the language of reflection, as well as the experiences of teachers as they engaged in reflective dialogue.

The practice of peer review operationalizes reflection as reflective dialogue and provided the initial context for this study. Peer review of teaching is an increasingly common practice in higher education (Bell & Cooper, 2013). In the state in which this study was conducted, peer review teams are a required part of public school teachers' annual evaluation process. Teachers are required to complete an Individual Professional Development Plan and select a team of two to five teachers with whom they can reflect. The practice of peer review is a collaborative, open examination of teaching practices by peers and is intended to provide teachers with opportunities to evaluate themselves and develop professionally. Although state law prohibits the use of peer review to sanction a teacher, it is considered part of the teacher evaluation process. Peer review is becoming a popular formative evaluation process for teachers as they advance their learning and continuously develop their pedagogy (Brix, Grainger, & Hill, 2014). It was through the established peer review process that reflective dialogue among secondary teachers was initially accessed for this study.

Three sessions were designed to provide opportunities for reflective dialogue which produced descriptive data of dialogic interaction. In Session 1, each of the two participating peer review teams were observed as they engage in their peer review team meeting in their usual, natural, representative setting. Following district protocol, each peer review team reflected on the progress of their Individual Professional Development Plans. The reflective dialogue from Session 1 was recorded, transcribed, and analyzed using self-designed, theory-based coding

(Appendix K), and conversation analysis (Appendix L) to identify learning and factors of motivation.

Session 2 was conducted as a focus group with the same peer review team. Participating teachers met with their peer review team to reflect on the transcript from Session 1, with me as the moderator. This reflective dialogue was recorded, transcribed, and analyzed using self-designed, theory-based coding (Appendix K), and conversation analysis (Appendix L) to identify critical incidents of learning and factors of motivation.

In Session 3, participating teachers met individually with me to reflect on transcripts from Sessions 1 and 2 in semi-structured interviews. Using the transcript data from Sessions 1 and 2, participants and I engaged in reflective dialogue, during which they provided their own analysis of the data and were given an opportunity to check my ongoing analysis. In these semi-structured interviews, participants provided answers regarding the transcript data and their perceptions of the reflective dialogue (Appendix F). These reflective dialogues were recorded, transcribed, and analyzed using self-designed, theory-based coding (Appendix K), and conversation analysis (Appendix L).

Definitions

This list of terms is designed to help the reader understand and interpret important concepts in this proposal. These terms are used throughout this dissertation.

Authentic relationships: This term is defined as connections formed among people who are honest and transparent and who expect and support those qualities among each other (Duyar, Gumus, & Sukru Belibas, 2013; Ning, Lee, & Lee, 2015).

Critical reflection: This term is defined as a specific function of reflection, it requires reflecting on the content, process, and premise of reflection and leads to new meaning schemes (Mezirow, 1991).

Dialogic: This term is defined as a type of discourse associated with open mindedness, critique, and creative thinking, as opposed to monologic interactions limited to the transmission of fixed ideas (O'Connor & Michaels, 2007).

Disorienting dilemma: This term is defined as an anomaly in an individual's thinking in which experiences do not fit expectations (Mezirow, 1991).

Growth-minded: This term is defined as a personal characteristic based on the belief that intelligence is not fixed and, instead, can be developed through deliberate practice (Tseng & Kuo, 2013).

Inquiry: This term is defined as the intentional act of investigating a problem and solution (Dewey, 1933; Kutsyuruba, Christou, Heggie, Urray, & Deluca, 2015)

Meaning-making: This term is defined as a process by which meaning is constructed about experiences and the self (Dewey, 1933).

Naturalistic observation: This term is defined as a qualitative approach to observation which allows the researcher to study participants in a representation of a real-world setting in order to generate descriptive data of their lived experiences (Angrosino, 2016).

Peer review: This term is defined as collaborative, open examination of teaching practices by peers intended to support professional learning and develop pedagogy (Brix, Grainger, & Hill, 2014).

Professional capital: This term is defined as the combination of the quality of the individual, the quality of the group, and the quality of professional judgement of both the individuals and the group (Fullan, Rincón-Gallardo, & Hargreaves, 2015).

Professional refuge: This term is defined as an experience in which a teacher feels emotionally safe because he or she is able to explore professional ideas without fear of negative professional consequences (Trust, Krutka, & Carpenter, 2016).

Protocol: This term is defined as a guided process for engagement in an activity (Doppenberg, Bakx, & Brok, 2012).

Rational discourse: This term is defined as dialogue that directs and invites each participant to publicly reflect on prior assumptions and consider new meanings (Mezirow, 1991).

Reflection: This term is defined as disciplined, systematic, and intentional consideration of the sequences of actions and consequences within an individual's experience (Dewey, 1933).

Reflective dialogue: This term is defined as a back-and-forth conversation in which each participant recognizes the strengths of the other (Knight, Knight, & Carlson, 2015).

Space: This term is defined as the supportive conditions that allow for the personal freedom to think and experience emotion (Charteris & Smardon, 2014).

Systematic thinking/reasoning/reflection: This term is defined as the process of recognizing definite and interdependent relationships between unorganized and disconnected concepts by both inductive and deductive reasoning (Dewey, 1910).

Transformative learning: This term is defined as the construction of new knowledge through intentional participation in considering new meanings (Mezirow, 1991).

Assumptions

The following assumptions underlie my study of the interaction of high school teachers' reflective dialogue. Language is a social action (Mann & Walsh, 2013), therefore the language in dialogic interactions is a phenomenon which can be studied. It is assumed participating high school teachers already are engaging in a peer review process as outlined by their district. As participating high school teachers engage in each session of the study, they participate in dialogic interactions as the phenomenon under investigation. The practice of peer review engages teachers in dialogue and reflective questioning about their practices in teaching and learning, and it is assumed they will be honest in this process. In addition, it is assumed participants were honest in reporting and analyzing their experiences and perceptions of learning and motivation during Session 3. This study assumes my involvement in Sessions 1 and 2 affected the interaction, because my involvement interferes with the representative or natural setting of teachers involved in reflective dialogue with their colleagues. Because this study is socially situated, it is assumed dialogic interactions were affected by sociocultural conditions and cultural diversity (Maxwell, 2012).

Scope and Delimitations

This study is delimited to high school teachers engaged in a peer review team. The focus of this study is limited to reflective dialogue as it is experienced in three situations, described as Session 1, 2, and 3 in the research design: (1) as a peer review team engaged in the peer review process, (2) as a peer review team looking at transcript data, and (3) in one-on-one reflection using transcript data. This study only focuses on language as a social interaction within reflective dialogue; it does not include non-verbal or written communication.

Limitations

There are certain limitations in conducting this study of reflective dialogue. Some participants may not have had adequate knowledge, experience, or skill in reflective dialogue. Some participants may have had difficulty expressing themselves. Participants' articulation of their interpretation of their experiences during reflective dialogue may have been limited by a lack of understanding of reflection, learning theory, or self-determination theory. Additionally, general findings from this study are limited by the small sample size and experiences of the participants, who were engaged in reflective dialogue around self-directed topics.

Significance

The findings from this study provide teachers and administration with insight into the lived experiences of high school teachers engaged in the interaction of reflective dialogue. The results help to identify the specific language *of* reflection and language *for* reflection in reflective dialogue that evidence learning as described by Dewey (1933) and Mezirow (1991), as well as the satisfaction of the need for competency, connection, and autonomy described by Deci and Ryan (1985). The findings include interactional data excerpts expressed in transcriptions from observations, focus groups, and interviews, which can be used for data-led approaches to reflective dialogue. The research design also serves as a model for those interested in investigating the reflective dialogue of a specific group or as a model for those interested in engaging in reflective dialogue for transformational learning. The findings contribute specific interactional dialogic data to be used in the practice and facilitation of reflective dialogue among teachers.

Summary

This introduction offered a broad understanding of reflective dialogue as the topic of the study and acquainted the reader with important information for understanding my research study. The research problem was identified as a need for data-led descriptions of the dialogic interaction of reflective dialogue. The purpose of my phenomenological study was to gather qualitative data that provide such descriptions. The conceptual framework provided the theories for learning and motivation that guide my research design. The research questions were presented which focus on high school teachers as they experience the language used in reflective dialogue, described as the dialogic interactions. This includes how their interaction provides evidence of learning; and how their needs for autonomy, mastery, and relatedness are met through the interaction of reflective dialogue. Using observations, focus groups, and semi-structured interviews with high school teachers, data were collected and analyzed in three sequential sessions of reflective dialogues. This introduction also highlighted key terms, listed my research assumptions, identified the scope and delimitations, and explained the limitations of the study. I discussed the significance of the study by proposing my findings contribute to the literature about reflective dialogue. It provides data-led descriptions of the interaction of reflective dialogue with a special focus on learning and self-directed motivation.

Chapter 2: Literature Review

A shift to more informal, collaborative learning experiences for teachers has brought about a new focus on teachers' reflective practices (van Kruinigen, 2013; Camburn & Han, 2015). Reflective action is useful for facilitating teachers' professional capacity (Camburn & Han, 2015; Danielson, 2015), motivation (Biktagirova & Valeeva, 2014), collegiality (Postholm, 2012), resiliency (Gu & Day, 2013), trust (Patti et al., 2012), and innovation (Owen, 2014; Santagata & Guarino, 2012). Although a variety of reflective practices are part of teachers' professional learning, there is a growing trend toward cooperative learning environments in which teachers may reflect on their personal practice through dialogue to develop their instructional capacity and expertise (Postholm, 2012; Robbins, 2015; Thorsen & De Vore, 2013). Researching the phenomenon of reflective dialogue can yield a better understanding of how the practice facilitates learning and motivation among teachers (Thorsen & DeVore, 2013; van Kruinigen, 2013).

Teachers' experiences in reflective dialogue must be intentionally accessed for a phenomenological study (Creswell, 2012). The initial access point chosen for my study is the practice of teacher peer review among high school teachers. Peer review is an annual state-wide requirement for all public school teachers, described as a collaborative, open examination of teaching practices by peers. In many schools, the practice of peer review is becoming a popular process for professional development and formative evaluation (Brix, Grainger, & Hill, 2014). The state in which this study is conducted prohibits the use of peer review to sanction a teacher, however, it is considered part of the teacher evaluation process. This practice of peer review operationalizes reflection as reflective dialogue and provides the initial context for this study.

The first section in Chapter 2 describes the strategy used to search and identify literature on the topic of teacher reflection. The second section provides the conceptual framework for the entire study. Farrell and Jacobs (2016), and Mann and Walsh (2013) cautioned reflection has historically been ill-defined and limited to activities done at an individual level. Therefore, in my conceptual framework, I define reflection according to Dewey (1910, 1933), as the process for true learning, and according to Mezirow (1991) as the process for transformational learning. The conceptual framework also includes Deci and Ryan's (1985) contribution to understanding factors of motivation.

The third section of this chapter reviews the selected literature organized around the following themes: (1) how reflective dialogue both creates and is facilitated by a sense of team; (2) how reflective dialogue can become a form of accountability; (3) how reflective dialogue increases teacher expertise; (4) how reflective dialogue supports the uncertainty of learning and encourages risk-taking; and (5) how reflective dialogue sustains purpose and challenges perspectives. Additionally, a thorough review of how reflective dialogue among teachers has been researched in current literature is provided. In this chapter, I provide support for a study on the interaction of reflective dialogue among high school teachers.

Literature Search Strategy

The search of the literature was focused on peer reviewed, primary sources published since 2012. I used the Concordia University library to search peer reviewed, scholarly articles through the following databases: ERIC, Science Direct, Science Direct Journals Complete, ProQuest, DeGruyter Online, Taylor & Francis Online, ProQuest Education Database, University of MACAU Institutional Repository, SAGE Premier, and Sage Journals Online. Google Scholar was utilized to search and organize an extensive list of resources.

The following search terms were used: [REDACTED] *teacher peer review*, *teacher peer review*, *peer review in evaluation*, *attitudes toward peer review*, *teachers' perception of peer review*, *teacher peer mentors*, *critical friends group*, *teacher collaboration*, *teacher reflection*, *teacher accountability*, *constructivist professional development for teachers*, *implementing peer review*, *deprivatization*, *peer reflection*, *reflective conversations*, *critical inquiry*, *reflective practices*, and *reflective dialogue*. Additionally, I conducted a threaded search of resources cited by other authors on related topics.

Camburn and Han (2015) found all socially-situated professional learning experiences in which teachers engaged were strongly associated with reflective practice. Therefore, I included research on any systematic, intentional, collaborative engagement between at least two teachers in which their teaching products, practices, and/or perspectives were opened to each other through dialogue. My parameters included preservice teachers and veteran teachers at all levels of instruction from elementary to postsecondary.

Conceptual Framework

Conceptual frameworks evolve through research and critical thinking, and are used to conduct new research and generate new information (Berman, 2013). For my conceptual framework, Dewey (1933), Mezirow (2000), and Deci and Ryan (1985) provide the theoretical approach in my study. Each theorist provides a perspective that can be applied to the analysis and understanding of reflective dialogue between teachers.

Dewey's Theories about Reflection

Dewey (1933) claimed reflection is thinking in a disciplined and systematic way. He also argued only reflection results in learning. Reflection is the intentional consideration of the sequences of actions and consequences within an individual's experiences (Dewey, 1933). He

claimed reflection changes mere experience into learning through intentional *meaning-making*. Reflection is the process by which meaning is made, because it produces an understanding of the relationships between facts in an event or experience (Dewey, 1933). For Dewey, the primary function of reflection is to learn from experience and act intentionally based on that learning.

Dewey (1933) argued intentional reflection contrasted with involuntary reflection. He recognized the act of involuntary reflection as a natural part of experience, but claimed it offers only a limited perspective and a limited outcome. Routine action is the default response to this involuntary reflection. He characterized true reflection as a discipline that required careful, systematic, and intentional thinking. He often referred to reflection as *critical inquiry* and contrasted it with *uncritical* thinking. Dewey described uncritical thinking as impulsive.

Dewey (1933) claimed the guiding factor in reflection is a desire to solve a puzzle or problem. He identified posing a problem as an important first step, one that went beyond general descriptions and statements of feelings to honest accounts of a problem. Dewey claimed problem-posing is the result of an aware and curious mind that is willing to entertain a measure of uncertainty. He cautioned this uncertainty can become uncomfortable and, therefore, requires a willingness to experience discomfort and imbalance. Dewey warned this discomfort often produces psychological protective mechanisms within the mind of the learner. Mechanisms such as rationalization, fixed false beliefs, bias, self-interest, and even laziness often prevent honest reflection (Dewey, 1933).

Dewey's (1933) next step in intentional reflection is hypothesis testing. For Dewey, this meant proposing possible explanations or solutions. Rodgers (2002) stated: "This phase could be understood as a series of intellectual dry runs through the problem/question and its various conclusions" (p. 854). Dewey warned that teachers often skip this step and usurp their own

authority in meaning-making by depending on outside authorities and resources for answers. These authorities and resources could include textbooks, curricula, school administration, and other colleagues. Dewey claimed teachers needed to take the time to explore their own possible solutions to problems.

Dewey (1933) believed true reflection happens through the interaction with others. He recognized a community of individuals provides the expanded perspective on experience that is limited in both involuntary reflection and private reflection (Dewey, 1933). Varied perspectives on a common experience aid in problem-posing, as well as critical inquiry toward finding a solution (Dewey, 1933).

For Dewey (1944), language used in collaborative reflection, became both the means for exploring an issue and the material to explore. The act of expressing oneself to another person provides opportunities for deeper examination of experience and new possibilities for meaning. Dewey (1933) explained,

When two persons find themselves at cross-purposes, it is necessary to dig up and compare the pre-suppositions, the implied context, on the basis of which each is speaking. The im-plicit is made ex-plicit; what was unconsciously assumed is exposed to the light of conscious day. (p. 280)

Interacting with others does not necessarily result in reflection. Dewey (1927) warned some communities may inhibit or even prevent reflection if characterized by a culture in which past and current practices are idealized and innovative or creative thinking is suppressed. Dewey (1933) also noted learners will not engage in collaborative reflection if they do not believe it to be valuable or critical. Reflection necessitates a perception within the learner that personal and intellectual growth is valuable for both the individual and the community of learners (Dewey,

1933). Reflection is either inhibited or facilitated by this attitude about the value of personal growth.

Dewey (1933) proposed the result of reflection is a certainty of belief grounded in evidence. He stated the purpose of reflection was to transform a situation from one of doubt into one characterized by clarity and harmony. Dewey strongly believed bringing an experience into balance through reflection motivated learning.

Mezirow (1991) summarized Dewey's (1933) view of reflection as validity testing. Mezirow agreed with Dewey's definition of reflection, but claimed Dewey missed the value of reflection *of* the reflective process. Rodgers (2002), however, argued Dewey would have considered the process of reflection an ideal experience on which to reflect. Although Dewey's views of reflection may lead to learning, Mezirow took a stand claiming it was not transformational learning. The following section will explore Mezirow's theory of transformational learning.

Mezirow's Transformational Learning Theory

Mezirow (1990) described his theory of transformative adult learning as an individual's engagement in a process of self-assessing how problems are posed and personal orientations regarding perception, knowledge, beliefs, feelings, and actions. Although adults engage in different kinds of learning based on their needs, Mezirow (2000) claimed transformation is the responsibility of adult educators because it facilitates adults becoming more socially conscious and involved. Transformative learning is a universal concept and one which leads to social action and societal change (Mezirow, 1991).

Understanding Mezirow's (1991) concept of knowledge is important to understanding his theory. Like Dewey (1933), Mezirow argued knowledge exists when the learner makes meaning

of his or her own experience. An individual's reality is construed through the unique and personal interpretation of life. Although this understanding of an experience is perceived as real, Mezirow claimed much of what is perceived as meaning is largely composed of presuppositions which are prerational and unspoken, causing a distortion. Mezirow understood transformative learning as the construction of new knowledge through this process of meaning-making. If transformation is meant to be the outcome, an individual must transform her interpretation of experiences by intentional participation in considering new meanings (Mezirow, 1991).

Mezirow (2000) identified two domains of learning: communicative and instrumental. Instrumental learning attempts to improve performance by solving a problem through action (Mezirow, 2000). It involves hypothesizing a solution, testing it for validity, and continuing this process until improved performance is achieved (Mezirow, 1991). Communicative learning, Mezirow claimed, is the process of coming to a shared understanding with others through language in dialogic interactions. Mezirow (1991) cautioned communicative learning is strongly shaped by cultural and social expectations.

Communicative learning takes place whenever two or more people communicate to coordinate their understanding and actions for accomplishing a goal (Mezirow, 1991). This collaborative communication toward a goal is called discourse. Discourse is the key to validating understanding and reaching a judgment on what an individual believes and should do (Mezirow, 1997). Much like Dewey (1933), Mezirow (1991) claimed alternative contexts increase as an individual becomes more reflective and open to diverse views from others. The standard for validity in understanding is usually a consensus or best collective judgment, which is reached through rational discourse (Mezirow, 2000).

For Mezirow (2000), the key to transformational learning is critical reflection. Critical reflection is a specific function of reflection in general; one that leads directly to transformative learning because it offers a paradigm shift in an individual's understanding of reality (Mezirow, 1990). For transformational learning to occur, Mezirow (1991) claimed reflection must include a critique of content, process, or premise of the reflection itself. This kind of critical reflection, Mezirow (1991) argued, created new meanings and new meaning schemes; new understandings and new ways of understanding. Mezirow (1991) argued that Dewey (1933) did not address the need to reflect on the process of posing problems nor the assumptions that guided the entire line of inquiry.

Critical reflection is especially important in making meaning of the past; in the understanding of memory. Mezirow (1991) claimed memory is selective, limited, and often distorted by unchallenged perspectives. Mezirow cautioned the mind is protective of the self and often obstructs psychological and cognitive functions, which result in self-deception and illusion and can distort learning outcomes. Critical reflection helps adults remember their experiences in ways that allow them to make new, more truthful, meanings by challenging mental obstructions.

Mezirow (1991) claimed critical reflection requires ideal learning conditions that support discourse among adults. For Mezirow, ideal conditions for learning require social interaction, because social interaction is critical to the shared construction of meaning. Both Dewey (1933) and Mezirow believed learning happens through a process of creating and recreating meaning through reflection conducted as a collaborative, social experience.

Mezirow (1991) outlined the following ten phases of transformative learning:

1. Disorienting dilemma
2. Self-examination with feelings of guilt or shame

3. A critical assessment of epistemic, sociocultural, or psychic assumptions
 4. Recognition that one's discontent and the process of transformation are shared and that other have negotiated a similar change
 5. Exploration of options for new roles, relationships, and actions
 6. Planning of a course of action
 7. Acquisition of knowledge and skills for implementing one's plans
 8. Provisional trying of new roles
 9. Building of competence and self-confidence in new roles and relationships
 10. A reintegration into one's life on the basis of conditions dictated by one's perspective
- (p. 168)

Mezirow (2000) described the goal of transformational learning as becoming more autonomous over the purposes, values, feelings, and meanings a person has, instead of assimilating them uncritically. Mezirow said transformative learning theory provides a process through which adults can engage in meaningful reflection which leads to both behavioral and cognitive transformation. Both Dewey (1933) and Mezirow (1991) describe reflective learning as rigorous and difficult. A perspective on what motivates adults to engage in this challenging kind of learning is provided by Deci and Ryan (1985).

Deci and Ryan's Self-Determination Theory of Motivation

Deci and Ryan (1985) posed a theory based on their assumption that people of all ages are driven by innate psychological needs. In Self-Determination Theory (SDT), Deci and Ryan claimed that people grow and develop to be competent, autonomous, and related to others and that these conditions motivate growth and development. The extent to which these needs are satisfied determines not only the degree of motivation an individual experiences, but also the

kind of motivation. Ryan and Deci (2016) described three kinds of motivation: amotivation, extrinsic, and intrinsic. Each kind of motivation is represented on a continuum ranging from controlled to autonomous motivation. This section will explore Deci and Ryan's research-based views on motivation because they provide an understanding of what conditions within the phenomenon of reflective dialogue motivate teachers, both intrinsically and extrinsically, by satisfying their needs for competence, autonomy, and connection.

Deci and Ryan (1985) described the need for competence as a need to demonstrate mastery of tasks. They explained competence as the ability of adults to both affect their environment and be effective in their roles or tasks. Although not specifically using the term *mastery*, Dewey (1933) and Mezirow (1991) described the need to solve problems, improve performance, and make good decisions as similar motives for learning.

Deci and Ryan (1985) described the need to be part of a social context, belonging to a group, and being attached to other people as the psychological need of relatedness or connectedness. Deci and Ryan (2008) reported this need for connectedness exists in all cultures, including those that have individualistic values. Houde (2006) explained relatedness, as described in SDT, is critical to providing value for an activity. Pink (2011), whose contemporary theory of motivation is based in SDT, calls this *purpose*. When people find value in a particular activity through or because of relationships, they find purpose. SDT recognizes social relationships as critical to both the process and purpose of an activity. When adults have the need for interpersonal connection satisfied, they are more likely to be motivated. However, Deci and Ryan (2002) echoed both Dewey (1933) and Mezirow (1991) in their caution regarding social interactions. Deci and Ryan explained the significance of social environments as either

facilitative or disruptive to personal growth. The way people interact determines the outcome of that interaction, leading either to learning or unchallenged, uncritical thinking.

Autonomy is the need to be in control of a person's own behavior (Deci & Ryan, 1985). Having choice in experiences regardless of the context is especially important for autonomy. Ryan and Deci (2000) explained autonomy can be felt within acts that are dependent or independent, as well as individualistic. Mezirow (1991) described autonomy in the process of learning as becoming self-aware and free from distorted thinking, thus creating a direct link between transformative learning and autonomous thinking.

In addition to these three psychological needs, Ryan and Deci (2016) described three kinds of motivation along a continuum: amotivation, extrinsic, and intrinsic. Amotivation is a complete lack of intention or motivation. At the other end of the continuum of motivation, the theorists claimed intrinsic motivation is the most volitional kind of motivation, allowing an individual to experience the highest degree of autonomy in regulating behaviors according to personal interests. Ryan and Deci found intrinsic motivation was a well-supported source for learning. The theorists also delineated four types of extrinsic motivation. *External regulation* represents maintenance of behaviors to receive an external reward or avoid an externally imposed punishment. *Introjected regulation* is a type of extrinsic motivation in which behaviors are controlled by internal rewards or sanctions, such as pride or shame. Neither of these types of extrinsic motivation are self-determined and, therefore, Ryan and Deci claimed do not lead to learning or development. However, two types of extrinsic motivation are self-determined. *Identified regulation* is relatively autonomous because people identify with the value of a behavior and then choose to act. *Integrated regulation* takes people a step farther by not only

identifying with the value of a behavior, but also integrating it with their own core values and interests.

Deci and Ryan (1985) claimed autonomous motivation occurs when a person can regulate both intrinsic and extrinsic factors of motivation associated with the value of the activity. Autonomous motivation empowers and exhilarates adults instead of depleting their energy (Deci & Ryan, 1985). The theorists found positive outcomes, like learning, were associated with both intrinsic motivation and extrinsic motivation when actions were regulated in a self-determined way (Ryan & Deci, 2016).

Dewey, Mezirow, Deci, and Ryan, provide the basis for my conceptual framework, which guides my research and analysis (Berman, 2013). My conceptual framework provides theoretical support for my selection of peer review as the starting point in my research. Dewey's (1933) view that reflection should be intentional and systematic led to the selection of the practice of peer review, rather than informal conversations between teachers. Peer review also made sense in terms of Deci and Ryan's (1985) theory which explains individuals are motivated, both intrinsically and extrinsically, when their needs for autonomy, connectedness, and mastery are met. Peer review can provide for these conditions because teachers must work with colleagues, are focused on some aspect of individual professional development, and are free to make choices about collaboration. Understanding both Dewey and Mezirow's views on reflection will allow me to analyze reflective dialogue in high school teachers' professional learning and generate descriptions of the interaction of reflective dialogue. Self-determination theory, as described by Deci and Ryan, provides a theoretical understanding of psychological motivators *and* outcomes related to reflective dialogue.

Review of the Literature

The literature reviewed in this section provides contemporary, research-based perspectives on the role, nature, and value of reflective dialogue among teachers. The context of my research is a phenomenological study consisting of reflective dialogue among high school teachers. The selected literature includes research of collaborative professional learning activities in which reflective dialogue is either implicit or explicit, such as: peer review (Brix, Grainger, & Hill, 2014; Nash & Barnard, 2014), professional learning communities (De Neve, Devos, & Tuytens, 2014; Owen, 2014; Prytula, 2012), professional learning networks (Trust, 2012; Trust, Krutka, & Carpenter, 2016), continuing professional development (de Vries, van de Grift, & Jansen, 2014), critical friends groups (Moore & Carter-Hicks, 2014), peer coaching (Charteris & Smardon, 2014; Patti, Holzer, Stern, & Brackett, 2012), co-teaching (Devlin-Scherer & Sardone, 2013), peer observation (Bell & Thompson, 2016; Hendry & Olivier, 2012; Quinn, Kane, Greenberg, & Thal, 2015), communities of practice (Tseng & Kuo, 2013), instructional learning teams (Brendefur, Whitney, Stewart, Pfiester & Zarbinisky, 2014), and communities of inquiry (Akyol & Garrison, 2014; McClanahan, 2015; Tam, 2015). The research is organized around five themes found within the literature.

Theme 1: Reflective dialogue and social connection

A school's success is based on the quality of the teams within it (Sparks, 2013). Strong teams, or professional communities, communicate and collaborate to improve outcomes (Sparks, 2013). Supportive relationships with colleagues are perceived as having a positive influence on teachers' practice and motivation (Gu & Day, 2013). Prosocial commitments strengthen collaboration and teacher self-efficacy (Tseng & Quo, 2013). Peer partnerships provide teachers with needed acknowledgement and useful opportunities for reflective practice (Chester, Clarke,

Wingrove, & Denny, 2013). This section of the literature review explores current research about reflective dialogue in relation to teachers' social connections or sense of collegiality.

Developing a social connection. Ning, Lee, and Lee (2015) found facilitating collegial communication, such as reflective dialogue, aided in the development of team collaboration. Ning, Lee, and Lee researched culturally diverse teachers engaged in professional learning communities in Singapore using a large-scale study of 952 teachers. The authors used a latent interaction structural equation model to identify relationships between the constructs of team value orientations, team collegiality, and team collaboration. Ning, Lee, and Lee noted the construction of authentic collegial relationships was critical to building a sense of team among teachers within a group. The authors concluded school leaders should encourage positive communication that cultivates a team climate (Ning, Lee, & Lee, 2015).

Trust, Krutka, and Carpenter (2016) found reflective dialogue conducted as a practice in online professional learning networks resulted in creating a *professional refuge* among participating teachers. Participants in their study found the online networks to be a safe environment for discussing their professional struggles. Although these groups were established prior to the learning experience, it was engagement in reflective practice that changed it from a group to a meaningful network (Trust et al., 2016). Additionally, Brabham, Nichols, Rupley, Nichols, Rasinski, and Paige (2016) found teachers who participated in critical, collaborative reflection were more likely to seek it out and invite their colleagues to participate. The authors indicated instructional coaching, described as a collegial relationship that uses critical reflection, created a desire for more collaboration because participating teachers saw it as helping them to become better teachers (Brabham et al., 2016). This research supports Deci and Ryan's (1985)

claim that both competence and connection are powerful motivators. As teachers felt more professionally competent, they desired more connection through collegial relationships.

Akoyl and Garrison (2014) conducted research in an online setting to investigate the progression and integration of social, cognitive, and teaching presence in a Community of Inquiry framework. Their findings indicated collaborative online discussions, which included reflection, increased participants' sense of belonging. The authors found this sense of belonging led to changes in perceptual orientations to the work; a group perspective replaced individual perspectives. Akoyl and Garrison noted the opportunity to share with colleagues increased participation in that activity. Being motivated to participate because of a sense of belonging directly aligns with Self-Determination Theory in which the need for connectedness is a psychological motivator (Deci & Ryan, 1985).

While studying teachers who voluntarily participated in an online community of practice specifically for the teaching profession, Tseng and Kuo (2013) found teachers developed strong relationships with each other. The authors found a significant correlation between the strength of social commitments within the online community and their self-efficacy beliefs. As teachers built interpersonal connections and were allowed to experience self-regulation, Tseng and Kuo found an increase in shared resources, strategies, action, and performance. The authors encouraged educational leaders to develop opportunities for teachers to engage in these kinds of growth-minded, collaborative activities free from the criticism of supervisors.

In a study investigating the practice of mandatory peer review in Australia, Brix, Grainger, and Hill (2014) found the process improved collegiality. The authors provided a specific outline for how peer review was conducted at one high school. The outline described specific strategies, which included steps such as "Teacher reflects on their performance in

achieving their targets in their Personal Development Plan” and “Discussion between the Teacher and Observer should form the basis of acknowledging the successful strategies, as well as identifying areas that may need further development and sourcing strategies to improve these areas” (Brix et al., 2014, p. 99). Although the teachers who participated found this process increased their sense of collegiality, a union representative reported it was an unnecessary process because teachers were already asking each other for support when they needed it (Brix et al., 2014). My analysis of their findings is that the depth of reflection during a peer review cycle went beyond a level of simply asking for support, which is perhaps why the participants reported more significance in the practice than the union representative.

Connections for better reflection. Reflective dialogue can help bring people together to form a team and those teams can then influence the levels of reflective dialogue. Doppenberg, Brok, and Bakx (2012) argued a focus on relationships was the key to assuring reflective dialogue is effective. Doppenberg et al. found teachers who engaged in a variety of collaborative activities could benefit from organized collaboration using protocols to enrich the descriptive details and questioning within their conversations.

Poom-Valickis and Mathews (2013) suggested an increase in reflective engagement by peers could increase the depth of reflection overall. In their study of novice teachers, the authors found participants were more reflective about the practices of the teachers they observed than of their own practices. Teachers rarely went beyond basic descriptions of their own classroom experiences, but would engage in problem-posing and problem-solving discussions when the focus was on a colleague’s classroom experience. Both Dewey (1933) and Mezirow (1991) suggested discourse aided in exposing problems and increasing awareness, two essential components of the reflective process. According to Poom-Valickis and Mathews, when teachers

are engaged in conversations around classroom observation data, they engage in reflective dialogue that is focused on problem solving.

High levels of social interaction contribute to the creation of reflective communities (MA, 2013). Researching computer-supported collaborative learning communities, MA found reflective dialogue was enriched by the diversity of reflective thinking among participants. Additionally, findings confirmed a strong relationship between the quality of the group's collaboration processes and the quality of the critical reflection (MA, 2013). This research supports the theories of both Dewey (1933) and Mezirow (1991) in that collaborative reflection allows for a variety of alternatives for problem solving through diverse and creative ideas.

Barriers to collaborative reflection. Potential problems regarding teams surfaced in the literature. Seashore Louis and Lee (2016) found the relation between reflective dialogue and organizational learning weakened among secondary teachers. The authors considered several reasons for this finding, including the proposition that when groups are compartmentalized by department, as they often are at the secondary level, reflective dialogue is inhibited (Seashore Louis & Lee, 2016). Creating a wider network of collegial relationships in which reflective dialogue can occur was one suggestion posed by Seashore Louis and Lee.

Evans (2012) argued collegial collaboration is often *not* the norm within most schools. Instead, Evans proposed schools are more likely to have communities of professionals who are merely *congenial*, rather than collegial. Evans argued although congeniality is an essential element of cultural expectations, it does not move a group into collegial practice. Through both deprivatization, the opening up of one's practice, and reflective dialogue, which includes candid conversations about professional practice, teachers can become professional communities that focus on development and performance.

Owen (2014) and Boyd and Glazier (2017) contributed to literature on the discussion between congeniality and collegiality. Boyd and Glazier (2017) found when conversation topics between teachers included difficult topics, such as student race or sexual orientation, their dialogue became more collegial rather than critical. Owen (2014) researched three case study schools, in which teachers participating in professional learning communities experienced either congeniality or collegiality. First-hand descriptions of collaboration which allowed for robust discussion and disagreement, were described as true collegiality. In contrast, first-hand accounts described congenial collaboration as: nice, polite, and lacking any challenge. The author suggested collegiality must be established as part of a culture in which teachers take responsibility for each other's learning. Owen explained teachers developed common expectations about specific strategies and then set up structures by which they could challenge each other to reach high levels of professional skill. The author's conclusions reflect an attitude Dewey (1933) described as critical to reflection; the attitude of mutual responsibility for each other's learning. Owen's research indicates reflective dialogue helps build a sense of team responsibility for each other's learning.

A barrier to building a sense of team is a culture of isolation. Barnard et al. (2014) quoted a teacher participating in their study as saying, "a lot of our teaching is last minute, seat of the pants private" (p. 66). Arnodah's (2013) research indicates this cultural mindset may be a phenomenon that is experienced across multiple cultures. Her research conducted on teachers in Kenya revealed cultural norms of privacy and individualism challenge the practice of peer reflective practices (Arnodah, 2013). Wang and Zhou (2013) also found this to be the case among Chinese teachers in professional learning communities. Suggesting that if reflective practices like Peer Teacher Evaluation are well practiced and supported by adequate training,

Arnodah claimed rapport among teachers could be promoted. Wang and Zhou suggested more effective collaborative groups reach out to those struggling in order to model collaborative practices and mentor them through the challenges. These studies support Deci and Ryan's (1985) claim that the need for connection and belonging are universal needs and not limited to modern American educational settings.

Research conducted by Finefter-Rosenbluh (2016) adds an important caution for the use of reflection among teachers and its potential to undermine collegiality. Finefter-Rosenbluh (2016) found secondary teachers may face significant ethical dilemmas in regard to their peers when asked to engage in reflective practices for professional development. Finefter-Rosenbluh discovered some teachers perceived reflective practices as potentially compromising to teacher privacy. Additionally, when teachers felt they were expected to engage in reflective dialogue, but did not feel they had adequate skills, the teachers admitted to lying to their colleagues about their own experiences and their feedback on their colleagues' experiences. Finefter-Rosenbluh also reported teachers mistreated each other by sharing content of the reflection with those outside of the reflective conversations, thus breaking confidentiality. Finefter-Rosenbluh discussed the conflicting issues of proceduralism and autonomy. Establishing procedures can create better conditions for collegiality, but also limits teachers' choice in how reflection happens. This research offers an important perspective on the potentially negative effects reflective practices can have on teachers' relationships with each other.

Reflective collaboration among teachers can produce positive outcomes, which supports the social learning views of Dewey (1933) and Mezirow (1991). Both Mezirow and Dewey described the importance of reflection conducted with others, explaining this allowed for a sense of support and opportunities for diversity of thought leading to satisfying solutions. Duyar,

Gumus, and Sukru Belibas (2013) found forced collaboration was a barrier to teachers who were not authentically engaged. Ning, Lee, and Lee (2015) also reported authentic relationships are essential to establishing a collective team perspective, which aligns with Deci and Ryan's (1985) explanation that people are motivated by a need to connect and belong. To the extent that reflective dialogue engages teachers in building this sense of authentic community and establishing frameworks for solving problems together., Additionally, if the team or community supports the individuals within the group with the freedom to be self-directed, the need for autonomy can also be met (Bell & Thompson, 2016).

Theme 2: Reflective Dialogue and Accountability

Although there is extensive research in the literature about various accountability practices, considering how reflective dialogue leads to accountability has only recently been part of the research (Kimball, Rainey, & Mueller, 2016). As school evaluation begins to look at value-added models, the role of reflection becomes increasingly more important (Konstantopoulos, 2014; Marzano, 2012). Moon (2013) described using reflective dialogue as an intentional means to promote accountability as a “top-down support for bottom-up reform” (p. 321). Ramos-Rodríguez, Martínez, and da Ponte (2016) suggested reflective teachers are more cognizant of their responsibilities. This section of the literature review looks at research which supports reflective dialogue as a tool to generate professional accountability among teachers through autonomous motivation (Deci & Ryan, 2008).

Fullan, Rincón-Gallardo, and Hargreaves (2015) analyzed educational policy and proposed a new model of professional accountability which emphasizes the development of professional capital. Professional capital is a combination of three parts: the quality of the individual, the quality of the group, and the quality of professional judgement of both the

individuals and the group (Fullan, Rincón-Gallardo, & Hargreaves, 2015). Teachers who are encouraged to talk about their practices and reflect on the outcomes of their work feel more accountable to each other and their students because they are compelled by commitments to each other and the common purpose of student achievement (Fullan, Rincón-Gallardo, & Hargreaves, 2015). This view of accountability aligns with self-determination theory proposed by Deci and Ryan (2008) and supports the concept of autonomous motivation. Teachers are motivated by their needs to feel connected, direct themselves autonomously, and master a task.

As teachers deprivatize their teaching by opening their classrooms and practices to others, reflective conversations about their practices increase (Arslan & Ilin, 2013). Researching the effects of peer coaching on teachers, Arslan and Ilin (2013) claimed this process develops an internal accountability even though it is effected through external accountability, such as teacher evaluations. The authors noted the combination of professional knowledge with collaboration created this opportunity for self-determined external accountability. When teachers engage in peer review, it moves them beyond the isolation of their own classrooms into critical conversations about their experiences (Bell & Cooper, 2013). According to Pullin (2013), when teachers are part of a group with shared commitments to a purpose and to each other, they will act more accountable. Darling-Hammond (2013) provided additional support for the practice of peers engaging in collaboration for the purpose of accountability through Peer Assistance and Review (PAR) programs. Although PAR is meant for teachers who are struggling to perform at acceptable levels, Darling-Hammond noted increased levels of peer accountability as key motivators for success. At first, accountability does not seem to align with Deci and Ryan's (1985) explanation of self-directed motivation. However, Darling-Hammond's research

highlights the relationships established through PAR, which most likely provide for the psychological need for connection.

External measures of accountability which use student achievement data can negatively affect relationships, between both teachers and students and between teachers and their colleagues (Mausethagen, 2013). This finding is supported by Deci and Ryan's (1985) theory that controlled, external motivation will undermine autonomy and, motivation. However, Mausethagen reported positive relationships develop when accountability is part of collaborative cultures. This research is in contrast to Walsh and Mann's (2015) proposal that reflective dialogue be facilitated through the use of data. As a point of discussion, Mausethagen proposed teacher conversations about accountability policies themselves may also contribute to positive collaborative cultures. This approach reflects the theoretical approach of Mezirow (1991) that reflection on perspectives, in this case perspectives of accountability practices, leads to transformational learning.. An analysis of teacher discourse regarding accountability policies which personally affect them may indicate the ways in which discourse leads to positive or negative collaborative communities.

Theme 3: Reflective dialogue and teacher expertise

For teachers, building a knowledge base is an ongoing process that requires continuous learning (Tucker, 2014). According to Masuda, Ebersole, and Barrett (2013), "At every career stage, teachers fostered an inherent love for learning and acknowledged the need for continuous growth" (p. 10). Kyndt, Gijbels, Grosemans, and Donche (2016) reported teachers engaged in a variety of both formal and informal learning activities to stay current in their field. Camburn and Han (2015) found only reflective practice and working with an expert were significantly associated with changes in practice. The construction of knowledge can happen in many ways,

but both Mezirow (1991) and Dewey (1933) proposed reflective dialogue allows for the co-construction of what is known and understood in a way that learning in isolation does not provide. Critics of this kind of learning often suggest professional development which depends on the expertise of colleagues resembles the blind leading the blind (Johannes, Fendler, & Seidel, 2012). This section of the literature review looks at how teacher expertise is co-created through the process of reflective dialogue and research on how that co-creation takes place.

Trust (2012) found reflective dialogue facilitated teachers' professional growth. Trust analyzed teachers' motivation to participate in online professional learning, finding teachers wanted to grow professionally and learn from others through the process of reflective conversations. The author's finding aligns with Deci and Ryan's (1985) explanation of connection and mastery as motivators. Trust noted written discourse was the primary method of engagement in the PLN, which provided teachers with resources, feedback, and help. By asking for help and advice, teachers were drawn into conversations that provided opportunities for reflective dialogue, such as clarification of problems, problem-solving, and creative thinking (Trust, 2012).

In Charteris and Smardon's (2013) research, teachers used video of their reflective conversations to guide their reflection of their own processes. This provided opportunities for teachers to "surface what had been invisible" (Charteris & Smardon, 2013, p. 182) and reflect on their own processes of thinking and decision-making. This kind of critical reflection is what Mezirow (1991) called premise reflection and can lead directly to transformation because it changes the thinking process.

Providing professional feedback and engaging in reflective discussions have been found to support the implementation of specific student interventions and treatments among both

general and special education teachers (Solomon et al., 2012). Providing teachers with specific feedback on teaching strategies increased their implementation of those strategies significantly (Knight, 2012; Reinke, Stormon, Herman, & Newcomer, 2014). Although Jaeger (2013) noted there has been little research conducted on the direct impact of teacher reflection on student achievement, Knight's research found a positive correlation between teachers receiving feedback and student achievement. Receiving feedback on teaching practices and then processing that feedback reflectively yields changes in either products, practices, or perspectives that can improve student achievement.

Increased instructional capacity was found to be a perceived outcome of a peer-observation process in which professors engaged in reflective dialogue (Hendry & Oliver, 2012). Drew and Klopper (2014) reported similar results in a study of higher education professors in Australia. Both the professor observing and the professor providing the feedback felt it created a learning opportunity and improved their pedagogic practices (Drew & Klopper, 2014; Hendry & Oliver, 2012). Surprising to the authors, the one providing the feedback found that role to be more useful (Hendry & Oliver, 2012). The authors suggested this may be the result of being able to watch certain practices before trying them and the thinking involved in having to provide a colleague with meaningful feedback (Hendry & Oliver, 2012). However, their research showed most of the feedback was in the form of suggestions and advice, rather than reflective questioning (Hendry & Oliver, 2012). Following up on this research, Tenenberg (2016) found reflection is an on-going process and problem solving can be done during the experience. These processes are key elements in both Dewey's (1933) and Mezirow's (1991) description of critical reflection.

Reflection about instruction and student learning. Tam (2015) found collegial dialogues allowed for questioning of traditional practices and experimentation with new ones. Tam indicated by participating in professional learning communities, teachers examined problems within their practice and could elaborate on those problems through clarifying conversations, which led to new considerations and possibilities for solutions to those problems. Wang and Zhou (2013) found instructional and pedagogical issues were often the focus of discussions. The authors described aiding or giving advice as a weak form of collaboration (Wang & Zhou, 2013). In contrast, Wang and Zhou described intense teacher collaborations as weekly peer observations and collective lesson planning which involved reflection. When a strong knowledge base is lacking, reflective collaboration can be facilitated by technology to connect stronger communities with weaker communities to build expertise (Wang & Zhou, 2013).

Using a video-based teacher observation program that engaged teachers in reflective dialogue while viewing the recordings, Quin et al. (2015) found an increase in instructional support among teachers. In their qualitative study of teachers' experiences with professional development, Kyndt et al. (2016) found some teachers engaged in discussion about strategies and reflected on how the strategies did or did not work in practice. Kyndt et al. concluded all teachers in their study valued the ideas of others to the extent that those ideas would build upon and refine their existing knowledge.

Beginning teachers are often more in need of a broader knowledge base regarding differentiated instructional strategies (De Neve, Devos, & Tuytens, 2015). Creating supportive cultures involves collaborative opportunities for teachers with different levels of experience, beginning teachers, and veteran teachers. De Neve et al. (2015) noted differentiation requires a

personal approach which can only be developed through a reflective process. The authors also concluded participation in collaborative reflection did not undermine teachers' sense of autonomy, because the conversations could be directed toward immediate needs, rather than external forces (De Neve et al., 2015). The research did not identify specific forms of reflection, but described reflection as opportunities to have in-depth conversations that allowed teachers to share knowledge and experiences with each other (De Neve et al., 2015).

Teacher collaboration often includes reflection on student learning tasks, student work, and instruction (Brendefur, Whitney, Stewart, Pfiester, & Zarbinisky, 2014). Researching Instructional Learning Teams, Brendefur et al. reported on the importance of having sufficient time in which to have reflective dialogue. Teachers need time to engage in conversations which lead to implementation of improved instructional practices (Brendefur et al., 2014). Additionally, the authors found conversations in groups differed from group to group depending on common expectations and levels of trust. Groups that had more focused work also had more focused reflection.

Devlin-Scherer and Sardone (2013) concluded co-teaching accompanied by reflective discourse facilitated improvements in instructional practices by increasing knowledge about strategies and the interconnectedness of content areas and providing opportunities to use new tools, such as educational technology. Co-teaching is considered a form of professional development which engages teachers in reflective dialogue (Devlin-Scherer & Sardone, 2013). In their study, Devlin-Scherer and Sardone described the kinds of questions that teachers ask when they are inviting feedback from their co-teaching colleagues. These questions were:

What are our students really learning? What do they understand deeply? What kinds of human beings are they becoming-intellectually, morally, or in terms of civic

responsibility? How does our teaching affect that learning, and how might it do so more effectively? (Hutchings & Shulman, 1999, as cited in Devlin-Scherer & Sardone, 2013).

Reflection and a common vocabulary. Danielson (2015) claimed conversations about teaching are a cognitive process in which teachers can establish common vocabulary, accumulate a repertoire of practices, and develop judgement about when to use them. She viewed these conversations as primarily problem-solving, noting the Framework for Teaching provides an opportunity for teachers to become more aware of issues or deficiencies in their practice (Danielson, 2015). She provided a simplified organization of the framework which uses reflective questions to help teachers focus on the components and elements of best practices. When teachers use a common framework, such as Danielson's, they develop a common way of talking about their practices. Examples of the questions in this framework include, "How does the physical environment support the learning activities? What is the nature of what students are doing? To what extent does the teacher ensure the learning of all students?" (Danielson, 2015, pp. 3-4). These questions are about the practices within teaching and can build a teacher's knowledge, but do not reach the level of reflective dialogue for transformational learning.

This concept of language development was also found in research by Ramos-Rodríguez, Martínez, and da Ponte (2016) and Kutsyuruba, Christou, Heggie, Urray, and Deluca (2015). Questioning among teachers engaged in reflective dialogue served to build a deeper understanding of common vocabulary and facilitate precision with the use of terminology (Ramos-Rodríguez, Martínez, & da Ponte, 2016). Rewording was common in the conversational findings, as teachers stated, restated, and paraphrased their ideas in a process of coming to a common understanding. McClanahan (2015) researched teachers' conversations in professional learning communities and found most of the dialogue centered on procedures and practices in

their classrooms. As teachers discussed their practices, they co-created a common vocabulary (McClanahan, 2015).

Vocabulary issues can be a challenge to reflective dialogue (Kutsyuruba et al., 2015). Tension is generated from inconsistent terminology and how certain concepts are operationalized in teachers' practice (Kutsyuruba et al., 2015). As an example, Kutsyuruba et al. described teachers' use of the term *inquiry* to cause some challenge when used as both teacher inquiry and student inquiry in the same reflective conversation. Dialogue uncovers meaning and provides a means to find a common understanding. Both Dewey (1933) and Mezirow (1991) explained learning was a process of meaning-making, and shared meaning-making requires uncovering what an individual understands and reaching a common understanding through the process of language.

Reflection about a teacher's own thinking and learning. In her analysis of articles relating to how experienced teachers continue to learn, Postholm (2012) found teachers' reflection of their *own* practice with their colleagues allowed them to change and develop their teaching. Postholm noted *how* teachers reflected was important; explaining metacognitive strategies were used to analyze effectiveness and propose creative alternatives. The author described teachers discussing their thinking strategies and building their personal knowledge about how they think, which aligns well with Dewey's (1933) view of reflective learning.

Metacognition was also a focus in research conducted by Prytula (2012). Although Prytula did not equate metacognition with reflection, the process of teachers discussing their metacognition is an important element in reflection. The author generated a research-based description of metacognition which referred to think, analyze that thought, and then put both thought and analysis to use (Prytula, 2012). Transcripts of reflective dialogue in the study

revealed the reflection allowed teachers to articulate their own learning needs and build their knowledge about each other's reflective processes. The authors found some participants used this new understanding to improve the dialogue within their groups. Prytula claimed teachers were metacognitive when they reached this level of collaborative regulation and direction about their own and others' thinking.

Teacher reflection facilitates student reflection. Lin, Hong, Yang, and Lee (2013) researched the impact of collaborative reflections on teachers' practices and concluded when teachers are actively engaged in a cycle of inquiry as part of their professional development, they are more likely to engage their students in the process. Not only does reflective dialogue help teachers build their practice, it provides them with the experience to facilitate the same kind of learning for their own students (Lin et al., 2013). The authors noted teachers' abilities to ask inquiry-based questions of their students increased. Vázquez-Bernal et al. (2016) looked for changes in one teacher's questions to her students as a measure of reflective practice. Questioning which clarifies problems and works to find a balance between what is known and unknown reflects Dewey's (1933) description of problem-posing within the reflective process.

Moore and Carter-Hicks (2014) found teachers transferred the practice of reflective learning to their classrooms as their own knowledge. Researching Critical Friends Groups, a form of collaborative professional development, Moore and Carter-Hicks concluded teachers improved their practice. The Critical Friends Groups commonly use protocols to direct their reflective conversations and often have a facilitator who leads the process (Moore & Carter-Hicks, 2014). Two specific protocols, Tuning Protocol and Consultancy Protocol, described by Moore and Carter-Hicks are also described by McDonald, Mohr, Dichter, and McDonald (2013).

How to engage in reflection. To increase teacher capacity, Walsh and Mann (2015) proposed facilitating reflective dialogue using evidence and data. They argued reflective practices are often left to the individual through activities such as journaling or other forms of written reflection. Like Dewey (1933) and Mezirow (1991), these authors claimed collaborative reflection produced a much deeper level of reflection and provided a variety of possibilities for solving a problem. Walsh and Mann echoed Dewey's view of learning as recognizing and solving a puzzle and suggested data, such as statistical or observational data, would create this circumstance. Tools could include protocols or the use of video to stimulate reflective dialogue. For example, Walsh and Mann described the use of the Self-Evaluation of Teacher Talk (SETT) framework which allows teachers take a research stance by analyzing and reflecting on their own data. Collaborative teacher groups who use tools such as a rubric to evaluate student work have a common language and understanding with which to discuss it (Brendefur et al., 2014). Tripp and Rich (2012) found changes in teachers' practices and perspectives were facilitated by the use of video. By having collaborative conversations around video recorded lessons, teachers' memories were clarified and the need for change was articulated. Additionally specific assumptions behind certain actions were discussed, such as the perceived quality of question-asking strategies used by the teacher. Data and tools help teachers identify and address the puzzles, issues, or problems together (Walsh & Mann, 2015).

Warwick, Vrikki, Vermunt, Mercer, and van Halem, (2016) found experienced teachers were more likely to skillfully use dialogic interactions to facilitate reflective dialogue among their peers. Strategies within the interactions, such as questioning, challenging, building off of ideas, and negotiating agreement, were found to advance the dialogue to where it evidenced

learning among the participants. Warwick et al. claimed an understanding of how teachers talk to one another leads to their learning can improve teacher learning.

Not all conversations among teachers about their teaching practices lead to reflective dialogue as described by Dewey (1933). Gelfuso and Dennis (2014) conducted a study of preservice teachers in which conversations with a knowledgeable, more experienced teacher did help them build their knowledge base but did not demonstrate Dewey's process of reflection. In this case, the lack of experience in reflection among both the preservice and experienced teachers seemed to limit the reflection (Gelfuso & Dennis, 2014). The authors warned facilitating conversations required skill about reflective dialogue, not just knowledge of the content of the conversations (Gelfuso & Dennis, 2014). What current literature shows, however is that teachers' skills in reflective dialogue are not intuitive and must be intentionally developed (Weiss, Pelegrino, & Frederick, 2017).

This section of the literature review reflects Pentland's (2014) theory of social physics, which holds that individual engagement in social networks will spread new ideas and eventually lead to changes in behavior or practice. The literature on teacher engagement in collaborative reflective dialogue suggests participation does increase teachers' capacity for knowledge of resources and practices. However, McClanahan (2015) challenged the idea that reflective dialogue needs to accomplish more than just building knowledge and skill. The author claimed leaders or researchers who compare teachers' discourse practices with an ideal model, such as that of Dewey (1933) or Mezirow (1991) for example, often see failure. McClanahan concluded allowing teachers to choose their own ways of reflecting does achieve collaborative learning. Throughout the literature reviewed in this section, a common theme was teachers' desire to improve or master certain professional challenges. Deci and Ryan (1985) theorized this to be

one of three critical motivators. Dewey (1933) also provided insight into why teachers are motivated to engage in collaborative reflection, explaining once a problem is perceived, it becomes necessary to find a solution.

Theme 4: Reflective Dialogue that Supports Uncertainty and Risk-Taking

Critical reflection is often necessitated by an anomaly in an individual's thinking or a disorienting dilemma (Mezirow, 1990). Initial self-examination of both anomalies and disorienting dilemmas is usually accompanied by feelings of fear, shame, guilt, or anger (Mezirow, 1990). Similarly, Dewey (1933) cautioned learning had phases that caused discomfort, especially when an individual is challenged to take a risk. There is also a risk involved with the potential of changing one's mind (Charteris & Smardon, 2014). These feelings can become even more of a challenge when confronted in the presence of colleagues (Barnard et al., 2014). A review of the literature revealed these to be common themes in the research. This section of the literature review looks at how reflective dialogue generates discomfort associated with learning *and* facilitates a supportive process through the discomfort.

Perceived expectations regarding expertise can cause discomfort in the learning process for teachers (Hallam, Smith, Hite, Hite, & Wilcox, 2015). As reported by Hallam et al., preconceived ideas about how much a teacher should know might inhibit collaborative reflection. The authors found some teachers indicated when they share ideas with each other, it might be misinterpreted as an assumption the teacher receiving the ideas is not knowledgeable enough on her own. This discomfort was described as not wanting to offend another person. However, Dewey (1933) claimed collaborative reflection must assume the shared responsibility for the learning of others. Hallam et al. found trust was key to these reflective relationships, explaining teachers exhibiting kindness, patience, and openness effectively created teams with

increased collaboration. Two important descriptions of the language and processes used to build trust was communicated by participants: “Trust is built through listening to everybody’s complete thoughts – not jumping in the middle of them and disagreeing, but listening” (F2D, as cited in Hallam et al., 2015, p. 202) and “Trust is built through willingness to admit failure and willingness to admit successes and be proud of those” (C2A, as cited in Hallam et al., 2015, p. 202).

Brendefur et al. (2014) found teachers who engaged in professional learning activities which required videotaping of their lessons followed by collective critiquing were often nervous. The authors noted this kind of collaboration left teachers feeling exposed because their practices were open to colleagues. However, Brendefur et al. also found, by engaging in this process, teachers were able to build trust among themselves and came to enjoy the process. This research indicated the discomfort did not come from a problem within the teachers’ instruction, but rather the collegial reflective process itself (Brendefur, 2014).

The practice of peer observation yields both benefits for learning and challenges to creating supportive environments (Bell & Thompson, 2016). Participants in Bell and Thompson’s study often experienced anxiety over their perceived competence. One participant noted how the reflective conversations also relieved these feelings: “The anxiety of...being revealed as a fraud comes up. [The conversations] actually create space where people start articulating some of these anxieties” (Bell & Thompson, 2016, p. 4). This research seems to indicate when reflective dialogue includes discussion about the feelings people experience in the process of learning, further reflection is generated. This level of reflection may reach the level of *critical reflection* outlined by Mezirow (1991) in which reflecting on the process of reflection is the key element.

Trust, Krutka, and Carpenter (2016) studied the experience of teachers engaged in online professional learning networks, finding 96% of participants reported modifying their teaching practices as a result of their collaborative learning. However, only 14% of the participants claimed the collaborative engagement helped them become better risk takers and be more willing to learn from failures, suggesting it is less common for teachers to engage in transformational learning. One participant of their study stated, “I have embraced the idea of F.A.I.L. or First Attempt in Learning” (Trust et al., 2016, p. 24). This same teacher indicated her own learning had influenced how she encouraged her students to adopt the same mindset toward their own learning (Trust et al., 2016).

Harper and Nicolson (2013) found when teachers engaged in reflection, they were more likely to develop new attitudes about themselves as learners. The authors researched online peer observation among teachers in England and Scotland, a practice which generated insight into the outcome of this kind of reflection. Harper and Nicolson found teachers developed confidence and self-efficacy as they learned to process their own perceived failures in the company of non-judgmental peers. The authors also reported some teachers expressed a new attitude about the need to be perceived as experts by their students, explaining teachers became more open to processing their own mistakes with their students. An outcome of these new attitudes reported gains in teachers’ sense of belonging (Harper & Nicolson, 2013). Participation in learning led to belonging. This became sustaining intrinsic motivator for these teachers, which aligns with Deci and Ryan’s (1985) theory that the need for relatedness must be met for people to experience motivation.

Santagata and Guarino (2012) reported an increase in preservice teachers’ perceived effectiveness in experimenting with new practices in their classrooms when engaged in reflective

collaboration as part of their coursework. The authors found a direct relation between how preservice teachers felt about doing something new in a classroom and whether any peers had experienced success with a new practice. Engagement in collaborative discussions directly led to preservice teachers feeling brave enough to try innovative practices and, therefore, should be an intentional goal for professional development (Santagata & Guarino, 2012).

Reflective experimenting requires a reflective mentality that allows for trial and error (Hilden & Tikkamäki, 2013). In Hilden and Tikkamäki's research, findings showed there is a gap between good intentions and action, specifically in the part of reflection that calls for experimentation. The authors noted open dialogue that poses challenging questions can cause anxiety and called for further research to study how reflection can remain constructive and productive (Hilden & Tikkamäki, 2013).

Cochran-Smith (2012) also concluded teachers develop resiliency by being engaged in collaborative reflective practices in which "questions and uncertainty are understood as signs of learning, not signs of failing" (p. 121). Both Dewey (1933) and Mezirow (1991) theorized the emotional and cognitive uncertainty that arises within the process of reflection, noting the learner must be supported and encouraged throughout the process of learning by those taking on this role. In the context of my study, this concept applies to teachers taking on the responsibility of supporting and encouraging fellow teachers. Cochran-Smith's research highlighted the need for a supportive culture among teachers and implications for research that identifies the reflective discourse that produces or inhibits that culture.

Research conducted by Storey and Richard (2015) found engaging teachers in reflection through the practice of Critical Friends Groups resulted in institutional changes through individual risk-taking. However, their findings did not explore the direct relationship between

reflection and reform. Using teacher surveys to study the characteristic of reflective dialogue in professional learning communities in Belgium, Vanblaere and Devos (2015) found teachers were more inclined to change or participate in reform efforts when they were supported through reflective dialogue in a professional learning community. Reflection yielded significant learning outcomes in their research. This is critical because the authors' research isolated the role of reflective dialogue in teachers' perception of change, not just their involvement in a professional community, deprivatization of their practice, or collective responsibility for student learning (Vanblaere & Devos, 2015). Although, Vanblaere and Devos' research did not discuss the specific process of reflection, it seems to support Dewey's (1933) claim that learning happens only when an individual collaboratively reflects on experiences in a systematic process of critical inquiry.

Zimmermann and Morgan (2015) studied the language of reflection with the unique conceptual perspective of investigating silence in dialogue.

In any encounter each person needs time for personal reflection to contemplate and absorb its lessons and to renew the dialogue more effectively. An encounter should not be an act of violence which forces the absence of speech or insists on speech without reflection, which prevents other possibilities of meaning emerging. (p. 413)

The authors argued silence was a valuable element when studying the nature of reflective dialogue, claiming an analysis of silence provides the researcher with a better understanding of active listening and a potential insight into the experience of uncertainty and doubt by the participant. Zimmermann and Morgan also explained the experience of solitude as demonstrated by brief moments of silence, even within a conversation, can preserve a person's autonomy.

Within the context of collaborative, reflective conversation, it is critical to note the absence of spoken language as part of the interaction.

Experiencing the discomfort of learning and accepting the risk of trying something new can be a challenge for teachers. De Vries et al. (2014) found teachers are less likely to participate in reflective activities than in general collaborative activities because it can emphasize or expose a teacher's shortcomings. Both Dewey (1933) and Mezirow (1991) explained learning necessitated risk taking and the capacity to endure a certain amount of uncertainty and discomfort through various points throughout the process. Deci and Ryan (1985) provided insight into how people can be motivated and supported by meeting their needs for autonomy, belonging, and competence. The research reviewed in this section supports this perspective and provides evidence that reflective dialogue can facilitate this kind of cognitive and emotional space for learning and for developing the skills for learning.

Theme 5: Reflective Dialogue that Sustains Purpose and Challenges Perspectives

Camburn and Han's (2015) research found most teachers engage in reflection around more general school issues, rather, than their own professional practices and perspectives. Although Camburn and Han described teachers' lack of depth in reflection, the literature does provide evidence that teachers sometimes do reflect deeply. Mezirow (1997) described transformative learning as perspective transformation or a deep kind of reflection. He cautioned when reflective discourse reaches a level in which the beliefs and assumptions behind the learner's thoughts and actions are challenged, it can often lead to questioning one's core purpose (Mezirow, 1997). Fullan, Rincón-Gallardo, and Hargreaves (2015) suggested groups of teachers who are committed to a common moral purpose will work collaboratively to achieve their goals. Coming to this shared understanding with colleagues requires communicative learning in which

a common purpose is reached through discourse by members of the group (Mezirow, 1991). When teachers belong to a group committed to its purpose, they are motivated (Deci and Ryan, 1985). It is from within this context, then, that teachers can challenge each other's perspectives through reflective dialogue. In this section of the literature review, I report on the research that provides evidence of sustained purpose and challenged perspectives as an outcome of reflective dialogue.

Reflecting on vocational purpose. In a four-year national study of teachers in England, Gu and Day (2013) found resiliency was closely tied to relationships and connection to an inner sense of vocation; when teachers feel connected and have a purpose, they are more resilient. The authors noted the effectiveness of relationships and purpose to generate resiliency depended on multiple factors. Reports from individual teachers indicated reflective conversations were an important part of these factors (Gu & Day, 2013). Resilience is an outcome of teachers' focus on valued educational purposes and their personal moral value, and can be developed through participation in learning communities. Gu and Day's findings on the capacity of teachers to sustain their purpose is supported by Dewey's (1933) view that reflecting on the *why* of learning motivates continued engagement in the process. Deci and Ryan (1985) provided insight into how purpose can be an intrinsic motivation or a self-determined type of extrinsic motivation in which an individual finds value in a behavior.

Patti, Holzer, Stern, and Bracket (2012) found reflective dialogue through face-to-face peer coaching provided an effective space for teachers to examine their purpose and professional vision. Charteris and Smardon (2014) also discussed the need for space in reflective dialogue. Space is described as the supportive conditions provided to the learner that facilitate exploration of the whole experience (Charteris & Smardon, 2014). The authors noted this was accomplished

in their study by implementing protocols which called for active listening and the suspension of judgement. In collaborative relationships with peer coaches, teachers have the space to reflect on the role their self-perception plays in their instructional capacity. Patti et al. provided protocols for professional coaching sessions in which teachers reflected on their personal values, personal strengths, and challenges. The specific questions in the protocol were not provided in the research, however, the process indicated reflection is operationalized by comparing challenging experiences with the perspectives of purpose and vision (Patti et al., 2012).

Reflecting deeper about learning. Deep reflection requires time. In their studies of Instructional Learning Teams, Brendefur et al. (2013) found more time spent reflecting allowed teachers to move beyond changes in knowledge to changes in beliefs and attitudes. Their research seemed to indicate, given enough time, teachers' reflective dialogue might naturally lead to deeper levels of reflection. This did happen in the online collaborative communities that Harper and Nicolson (2013) studied. The participants consisted of geographically diverse teachers participating in a professional development project through the UK's Open University. Harper and Nicolson reported teachers engaged in online conversations in which they questioned their colleagues' views and beliefs behind certain practices, even though it was not a direct requirement of the collaboration. This research may challenge Dewey's (1933) claim that critical reflection must be systematic and intentional.

In their research of secondary teachers in Dutch schools, de Vries, van de Grift, and Jansen, (2014) found teachers' beliefs about learning and teaching affect their teaching practices. This is supported by research conducted by Woodman, Richard, and Maria (2015), which found positive long-term effects from teachers reflecting on their beliefs. The authors studied two early-career lecturers at the university level who participated in one peer review experience and

then a second mandatory peer evaluation two years later. The teachers in this case study perceived and documented student benefits. They attributed these benefits to the professional development provided by the experience of peer review over other experiences with professional development (Woodman, Richard, & Maria, 2015). Both teachers noted the initial experience early in their careers set the stage for reflective practices in the following years (Woodman, Richard, & Maria, 2015). Hepple (2012) studied dialogic reflections of preservice language teachers and found teachers' reflections showed evidence of negotiating and reframing their understanding of pedagogy and how children learn best. Additionally, Hepple reported a positive change in teachers' perceptions of themselves and their role in student learning.

Biktagirova and Valeeva (2014) experimented with teachers' ability to learn reflective skills and found pedagogical reflection was not primarily about subject knowledge, but rather about a personal worldview. When teachers engaged in pedagogical reflection, the process helped orient their perspectives and attitudes about themselves, not the objects of pedagogy. Biktagirova and Valeeva's research also found a higher level of motivation among teachers who experienced this kind of reflection. The authors concluded when reflection leads to a deeper understanding of a person's value system, self-actualization is possible. The process for leading teachers through this kind of reflection, however, was not explicit in the research from Biktagirova and Valeeva.

Tam (2015) specifically studied the changes in practices and beliefs of teachers participating in professional learning communities. Although most teachers reported changes in their beliefs that led to changes in practices within their classrooms, Tam highlighted the change in teachers' beliefs about learning as significant. Quoting one of the participants, Tam wrote, "After each lesson, we undertake mutual reflection. The more we learn to reflect, the more we

can generate desirable outcomes” (p. 35). This provides some evidence that reflecting on the process of reflection led this teacher to a new perspective on the value of learning from each other through reflection. Tam concluded professional learning communities provided teachers with opportunities to have their individual beliefs challenged and, instead of conflict, this led to a community which nurtured and supported each other.

The process of reflection was described as the following:

Through collegial dialogues, communal reflection, and questioning of the old practices, it [*sic*] was able to come up with new ideas. The teachers readily disclosed their uncertainties and invited comment and advice from others. They demonstrably [*sic*] reserved time to identify and examined [*sic*] problems of practice. They elaborated those problems in ways that open up new considerations and possibilities. (Tam, 2015, p. 35)

When colleagues understand each other’s perspectives, it develops a stronger sense of community and connection (Moore & Carter-Hicks, 2014). In their study of Critical Friends Groups, which commonly use protocols to guide participants through reflective dialogue, Moore and Carter-Hicks found participants were not only able to delve deeply into the dilemma or question at hand, but also engage each other in reflecting on perspectives and experiences. Farrell and Jacobs (2016) claimed “reflection must include the contemplative reflection of the inner being of the teacher” (p. 3). This requires a close examination of the cultural, social, and political settings of the learning, which Farrell and Jacobs claimed required teachers to engage in reflection on the influences of the group on their personal and professional growth. This echoes Mezirow’s (1991) call for reflecting on the practice of reflection, but pushes the learner even further than Mezirow did to examine the context of the learning.

Charteris and Smardon (2013) provided a specific way to facilitate teachers' metacognitive reflection. They recorded teachers' peer coaching sessions and then reviewed the videos with the teachers. Charteris and Smardon reported the reflective dialogue allowed teachers to experience Mezirow's (1997) kind of transformational learning; new learning generated by critical reflection on assumptions and prerational thinking, as well as the process of reflection itself. This practice allowed teachers to objectify their thinking and reflect on their own reflective practices. "The process itself supported teachers to surface the invisible and critique their assumptions through critical reflection" (Charteris & Smardon, 2013, p. 183).

In his description of true collegiality, Evans (2012) claimed the reason teachers must engage in meaningful reflection is not to develop new practices or products for teaching, but to develop a new way of looking at things, especially at themselves. Dewey (1933) explained the process of learning included reflection on a person's own actions, but Mezirow (1991) claimed transformational learning required reflection on the consequences of a person's own beliefs and assumptions. By reflecting first on their own perspectives, teachers have a unique opportunity to truly evaluate theirs and others' products and practices.

Researching Reflective Dialogue

Both Dewey (1933) and Mezirow (1991) explained language is a critical element in reflective dialogue and certain conditions facilitate it. However, there is a lack of research on what reflective dialogue sounds like (Mann & Walsh, 2013). Taking an applied linguistics approach in their research, Mann and Walsh outlined two kinds of language used in reflection: language *for* reflection and language *of* reflection. According to Mann and Walsh, language *for* reflection looks at the linguistic and interactional feature of reflective practice. The language *of* reflection focuses on the process and studies how reflection is framed, encouraged, and achieved

(Mann & Walsh, 2013). Research on the language used in reflective dialogue can add to the understanding of how reflection supports motivation and leads to learning (Mann & Walsh, 2013, Hilden & Tikkamäki, 2013). This section of the review of literature explores the methods contemporary researchers have used to study reflective dialogue.

Experimental approach. Biktagirova and Valeeva (2014) studied teacher reflection using an experimental method. The authors conducted this empirical study with a control group of 170 respondents and an experimental group of 150 respondents. Teachers in the experimental group participated in a variety of reflective activities intended to promote reflective dialogue. Biktagirova and Valeeva used mathematical statistics to determine the influence of these activities on teachers' pedagogical reflection, by documenting self-reported changes in teachers' reflection. The authors identified the characteristics of reflective dialogue as "theoretical and methodological, motivational, value-semantic, emotional, sensual, procedural and active" (Biktagirova and Valeeva, 2014, p. 61). They used statistical methods of correlation analysis, ranking, and t-Student criterion, and reported increases in rates of teachers' engagement. This was the only current experimental study found that focused on reflective dialogue among teachers, however Biktagirova and Valeeva did not focus on reflective language.

Qualitative and quantitative approaches using self-reported data. A large portion of the studies reviewed used surveys or questionnaires. These approaches may have addressed reflective language, but only as self-reported data. Vanblaere and Devos (2015) researched, in part, the relationship between teachers' perception of school leadership and engagement in reflective dialogue. The authors developed a questionnaire by which teachers self-reported their engagement in reflective dialogue when participating in professional learning activities. However, Vanblaere and Devos did not directly study the content of the dialogue itself.

Camburn and Han (2015) also studied teacher engagement in reflective practice using a questionnaire. Data were collected from 887 teachers and non-principal school leaders in a large school district in Southeastern United States. Their questionnaire used a previously validated instrument called the Study of Instructional Improvement (Camburn & Han, 2015). Eight items in the questionnaire measured self-reported data on how teachers engaged in reflection. The authors used Cronbach's Alpha to determine the reliability of the measure and a series of two-level hierarchical linear models to generate outcome measure scores. Although Camburn and Han did not focus on specific reflective language, three items in the survey implied a specific kind of language; "My professional learning experiences this year led me to (1) seek additional information from others, (2) question the teaching methods I use, and (3) question beliefs & assumptions about teaching methods" (p 520). An issue related to this approach was described as differences in language interpretation or perception by different racial or ethnic groups within the study (Camburn & Han, 2015). The authors noted participants read and interpreted the questionnaire from their own point of view without the ability to clarify meaning.

An online questionnaire was also used by de Vries et al. (2014). Their research focused on the relationship between teachers' beliefs and their engagement in collaborative professional development. The authors used the questionnaire to study five constructs, including reflection. The questionnaire included 13 items related to reflective activities, such as personal reflection, collaborative reflection, and collecting data for reflection. The questionnaire also studied the construct of collaborative activities, which included items related to talking, sharing, and discussing aspects of teaching with colleagues. Examples include: "I share learning experiences with colleagues. I talk about the way I deal with events in my lessons with colleagues. I experiment with new teaching methods with colleagues" (de Vries et al., 2014, p. 347). All scale

scores were standardized and several tests were conducted to determine relationships and trends. This allowed de Vries et al. (2014) to understand not only teachers' engagement in reflective and collaborative activities, but also the strong relationship between teachers' beliefs about learning and their own engagement in learning through reflection. The authors discussed the limitations of their study, acknowledging their data did not show how reflective activities may overlap, such as reflective and collaborative activities. Longitudinal research was also suggested by de Vries et al. (2014) to determine sustained change.

Qualitative approach using narratives as data. Thorsen and DeVore (2013) developed their own instrument to analyze reflective dimensions and the level of sophistication of the dimensions of reflection in teacher candidates' artifacts, primarily digital stories. The Developmental Continuum of Reflection on-/for-Action Rubric (DCRo/fA Rubric) integrates multiple theories into a continuum of cognitive processes, reflective thinking, and reflective communicating (Thorsen & DeVore, 2013). The DCRo/fA Rubric is grounded in the theories of LaBoskey (1994, 1993), Hatton and Smith (1995), van Manen (1977), and influenced by Dewey (1903), Bloom, Engelhart, Furst, Hill, and Krathwohl (1956), and Anderson and Krathwohl (2001). The authors described a detailed process of reviewing existing rubrics, formulating and testing their own drafts, and finally creating an instrument that reliably evaluates individual artifacts. Thorsen and DeVore's rubric was evaluated for effectiveness and received an inter-rater reliability of 90%. However, because the sample was limited to 11 digital stories created by teacher candidates, the authors discussed the need for validity and reliability testing of the rubric in wider samples and with a variety of artifacts.

Qualitative approaches using dialogue as data. Mausethagen (2013) suggested future research include conversational approaches to understand the role of discourse in teacher

relationships. Cortazzi (2014) reviewed both the qualitative and quantitative narrative approaches that can be used for researching teachers' voices, claiming this approach provides authors with data from the teachers' point of view. Mann and Walsh (2013) argued a focus on the nature of reflection requires attention to both the language *for* reflection and the language *of* reflection. In her review of current research, van Kruinigen (2012) found most of the studies did not adequately provide an analytic framework that could be used to analyze conversations among teachers. Van Kruinigen (2012) claimed "Conversation Analysis (CA) is one of the most appropriate approaches to study interactional phenomena in learning processes" (p. 112). When researchers focus on what is said and how it is said, such as ordering and framing, a detailed understanding of the quality of dialogue can be found (van Kruinigen, 2012). The concept of meaning-making through collaborative reflection, as described by both Dewey (1933) and Mezirow (1991), can be systematically studied.

Among the dialogic approaches, three studies were found in which the authors determined longitudinal research was appropriate for researching reflection. Tam (2015) argued that changes take a long time and, therefore, conducted a longitudinal qualitative study which allowed for an in-depth research from 2007 to 2011 using semi-structured interviews and observations. She used an analytical approach that included coding and sorting the transcript data from both the observations and the interviews. Tam also used constant comparison to verify her coding. Charteris and Smardon (2013) conducted a longitudinal case study using interview data over a 2-year period. These authors noted the value of being able to see growth in reflection through peer coaching over time. Charteris and Smardon provided voice data transcripts and video to participants following a peer coaching session, along with a process for self-review. Participants were then interviewed in a semi-structured format and interview transcripts were

analyzed for emerging themes. Konradt and Eckardt (2016) proposed longitudinal studies offer a more appropriate perspective on both the nature and outcomes of reflexivity. However, longitudinal studies take time and challenge feasibility (Tam, 2015), which is why most of the research is not longitudinal.

Glazier, Boyd, Hughes, Able, and Mallous (2016) relied on informal teacher conversations during intensive seminars, which consisted of teachers in grade-level groups who volunteered to explore successes and challenges in their classrooms. The authors were listening for instances of collaboration during these discussions. Collaborative conversations were transcribed, coded, and analyzed for common themes. This approach was slightly different than the other examples in this review, because the teachers having the conversations did not know reflection or collaboration were the intended focus. Glazier et al. (2016) found although most of the collaboration was comfortable, there were interactions in the conversations that seemed to indicate a challenge to an idea or self-reflection within the dialogue. Glazier et al. (2016) cited the use of words and phrases they called “discourse markers - ums, likes, you knows” (p. 12), which indicated the speaker was grappling with an idea. The authors provided several excerpts from the dialogue which demonstrated the prompting of critical collaboration and moved conversations to deeper levels. These excerpts included examples such as challenging the group to consider a different point of view, recognizing and admitting weakness, and resisting ineffective strategies in search of a better solution even when not easily found (Glaxier et al., 2016).

Owen’s (2014) research involved a case study which used a survey, interviews, and focus groups to investigate, among other things, the evidence of reflective dialogue in the professional learning process of teachers. Interviews were digitally recorded and participants were provided

with transcripts to review. Owen used a manual analysis to determine key themes, including teacher negotiation and challenging debates. Findings from all three instruments were compared and discussed. Owen did not provide a framework for analysis in her research.

In much the same way, Hendry and Oliver (2012) analyzed interview transcripts using content analysis. The authors interviewed peer review members individually following their participation in an observation/feedback cycle with a colleague. Themes were identified and compared through an initial phase and a second phase. Although they identified a theoretical framework for their content analysis, there was no specific tool used to analyze the transcripts.

McClanahan (2015) used a combination of video and audio data, along with field and observation notes, to conduct a qualitative study of teachers' pedagogical reasoning in a collaborative team. Pedagogical reasoning was described as dialogue which demonstrates teachers' comprehension of concerns within their practice (McClanahan, 2015). The author described herself as the key instrument for analysis. She organized and coded the data, then generated categories and themes by reflecting on the data. McClanahan did use Horn's (2005) *Episodes of Pedagogical Reasoning* to identify qualifying dialogue. To validate her findings, McClanahan used an external auditor to review the study. Reliability was tested through constant comparison, in which McClanahan compared new data with previous data as it was collected.

Akyol and Garrison (2014) also used transcript analysis to analyze online discussions among teachers in a learning setting. The authors identified both manifest and latent content analysis strategies applied to coding and exploring patterns within the discussions. Akyol and Garrison described the process they used to practice their analysis skills prior to conducting the actual research, which provided them with an estimation of the reliability of their negotiated

approach. A Community of Inquiry (CoI) survey instrument was administered to the participants and allowed for constant comparison analysis method among the instruments used, including the coding strategies and the survey. Several items on the CoI instrument indicated teachers' engagement in reflective dialogue or their perceived value of it. These items included: discussion that led to a sense of collaboration, building of trust, disagreeing with others, an appreciation for different perspectives, generating possible solutions, and a better understanding of concepts (Akyol & Garrison, 2014). The authors noted the value of using both a quantitative approach, through the survey, and a qualitative approach, through coding of the transcript analysis, to provide a sound mixed-methods study.

In their research of trust development in PLC teams, Hallam et al. (2015) conducted a qualitative matched cases case study approach using purposive sampling and transcript analysis from focus groups. The authors used open coding, axial coding, and selective coding to determine themes in the data. Hallam et al. determined a threshold criterion of 67% representation for the themes to be included in the study. The authors cautioned their findings were limited to a small sample and that quantitative research was needed to explore the generalizability of their conclusions to other collaborative teams. Hallam et al. also suggested longitudinal research would provide insight into the extended process that allows some teams to reach a deep level of trust, through their collaborative language.

In contrast to the discourse analysis methods reviewed above, MA (2013) proposed a detailed content analysis scheme for her research. Combining several research-based instruments, MA developed a model for analyzing different learning aspects and reflective thinking within an online community. MA claimed the indicators highlighted the process of reflection in three important ways. First, the author charted the intensity of participation by

creating a visual representation of the dialogue in threaded discussions. Second, she identified the nature of the messages with four categories: administrative, technical, social, and content. Third, she identified which of three phases in the process of reflection each message unit fit within. By studying the interrelationships among these attributes using a content analysis model with different frameworks, MA examined dialogue at a complex level. MA noted the limitations of her study included not being tested at the empirical level, a small number of participants, and a time-consuming and tedious coding process. Although MA provided a complex analysis of reflection in her research, there were no examples of what the language consisted of or what it sounded like for each of her models.

Kim and Silver (2016) provided examples of specific reflective language in their research of reflective dialogue. The authors collected post-observation data from teachers in a PLC following a process of planning and classroom observation conversations directed by the teacher who had been observed, allowing for some autonomy in the reflective conversation. Post-observation conversations were recorded and analyzed using a conversation analysis. Kim and Silver did not provide specific analytical guidelines except trying to foster reflective thinking. However, the authors generated representative examples of the pattern described. Through their analysis, the authors determined a focus on the initiating moves of each episode was needed. Kim and Silver (2016) provided examples of reflective language such the following: “So what happened here? What do you mean what happened?” (p. 209), which indicates a process of probing and clarifying meaning together. The language also reflected attempts at deeper levels, such as “What do you think about...? What are you noticing?” (Kim & Silver, 2016, p. 210). The authors also noted the value of observation data with a focus on teachers’ non-verbal

reactions as part of the dialogue. The methodology used by Kim and Silver generated clear examples of the language used for initiating reflective dialogue.

While reviewing the literature on methodology for studying reflective dialogue, another approach emerged in the research; research that promotes reflection. Way, Zwier, and Tracy (2015) suggested research can become a means for engaging in critical reflection or research as intervention, primarily when participants are involved in interviews or discussions regarding their own transcript data. Craig, Neijer, and Broedkmans (2013) discussed the process of meaning-making within the researcher-participant relationship, noting dialectic methodology provides this creative opportunity. This concept is reflected in several current studies of reflective dialogue, which are described in the following literature.

Charteris and Smardon (2014) conducted a case study which looked at facilitated inquiry. Groups of teachers collected student voice data by recording students' responses to pre-determined questions. The teachers followed protocols to engage in reflective discussions about the student voice data. Those reflective discussions were recorded and each teacher was provided with a copy of the video to review on their own time. Charteris and Smardon then conducted semi-structured interviews with each teacher, which were also video recorded and transcribed. These interview-based reflective dialogues provided insight into teachers' reflection of their own reflective processes with their colleagues. The authors conducted line-by-line coding and constant comparison to generate themes. Using the conceptual framework of a constructivist approach, Charteris and Smardon identified the themes appropriate for inclusion in their findings: "the use of questioning to promote thinking; the affordance of space for reflection; and leading dialogic peer coaching" (Charteris & Smardon, 2014, p. 116).

Additionally, Charteris and Smardon (2014) provided specific examples of the language, narration structure, and processes generated within the interviews in their findings. For example, the authors identified an interaction in which one teacher said, “What is the next step?” Which was followed by the reply, “I want to get my kids in the top group discussing more.” The first teacher responded with, “How do you think you are going to do that? (Charteris & Smardon, 2014, p. 117). This was an example of reflective dialogue promoting thinking. In addition to reflective dialogue, Charteris and Smardon noted the ways in which the groups generated the social conditions for reflection through language.

Prytula (2012) used a similar sequence of data collection to set up her phenomenological study of teachers’ metacognitive processes during reflection. After participating in PLC’s, teachers were interviewed. Those interviews were recorded, transcribed, and reduced to key moments where they were possibly engaged in deeper thinking or experiencing critical incidents. Those data were then used to conduct subsequent interviews in which the teachers were asked to reflect on those key moments. Transcripts from those subsequent interviews were transcribed, coded, and analyzed for themes. Prytula provided specific examples of the language used as evidence for metacognitive processing. One participant stated,

If something’s going wrong, I need to know how to fix it. In order to fix it, I need to know what the problem is. In order to understand what the problem is, I need to think about the situation. And when I get to a question to where I don’t know the answer that’s where I need my PLC. Because I need to voice what’s not going on, and I need to answer it. (Tracey, as cited in Prytula, 2012, p. 116).

This method allowed the researcher to investigate the unique and individual constructs teachers used to evaluate their own thinking, rather than using a construct of her own. As an example of

how this research process provoked critical reflection which led to transformational learning, Prytula (2012) described the experience of one participant,

She explained that when she first started teaching, she preferred to keep thoughts to herself because sharing made her vulnerable to criticism from others. She explained that it was only when she examined her own thought about why dialogue and teaching with other teachers made her uncomfortable that she realized that dialogue was beneficial. (p. 117)

Way, Zwier, and Tracy (2015) conducted empirical research on their own previous research in a variety of settings that involved reflective dialogue as part of interviews. The authors had noticed that while participating in the interviews, there were moments in which people engaged in discourse which the authors described as “flickers of transformation” (Way, Zwier, & Tracy, 2015, p. 3). The authors relied on critical incident sampling from interview transcripts from three previous studies of male executive gatekeepers, correctional officers, and youth apprentices. They systematically examined the interactional moves around moments defined by openness, self-interrogation, and reflexivity (Way, Zwier, & Tracy, 2015). Descriptive coding was conducted in several levels, which generated common categories. Way, Zwier, and Tracy then condensed the categories into three strategies associated with dialogic interviewing which led to traces of transformation in the participants: probing questions, member reflections, and counterfactual prompting, which are described below.

Way, Zwier, and Tracy (2015) provided specific examples of the language used for each strategy above. Examples of probing questions included: “What do you think? Why? Why not?” (Way, Zwier, & Tracy, 2015, p. 10) The authors also noted discussion tactics related to probing questions included resisting finishing the participants’ sentences when interviewing.

Member reflections represented the strategy of mirroring, in which the researcher repeats back the participant's words. Member reflections also represented the tactic of calling out the participant when there was a lag in thinking. The example provided was "You were about to say...?" (Way, Zwier, & Tracy, 2015, p. 10). Reassurance was the final strategy in the category of member reflections. The authors described reassurance as communication which expressed understanding of what the participant is saying. The third category, counterfactual prompting, was described as questioning that invites the participant to imagine new perspectives (Way, Zwier, & Tracy, 2015).

Way, Zwier, and Tracy (2015) argued a dialogic approach to analyzing interviews is preferred to a checklist. The authors suggested this approach encourages researchers to engage participants as complex people rather than sources of information. Way, Zwier, and Tracy proposed, when the participant is involved in the analysis of the reflective dialogue, it adds an additional layer of participation. If researchers can genuinely engage with their research participants in a way that challenges assumptions and provides a space for meaningful reflection, transformation within the research process is possible.

This review of research methodology provided an understanding of a variety of both qualitative and quantitative approaches which can be used to study the interaction of reflective dialogue. Qualitative approaches emerged as the most used approach, but the difference between methods such as surveys and interviews revealed a contrast in the data generated. Surveys can only generate self-reported data, while interviews and observations generate dialogic data that can be transcribed and coded. As van Kruinigen (2012) argued, language is the data that provides the best insight into the interaction of reflective dialogue. Although several of the studies which used surveys provided large samples, the qualitative studies were conducted with a

very limited sample. MA (2013) provided insight into a possible explanation for the overabundance of small-scale studies that use a narrative approach, describing the coding process as tedious and time-consuming. Even when technology can assist with the coding process, the researchers themselves are the most important instrument for analysis, which requires attention to detail and expert knowledge of the process (McClanahan, 2015).

Summary and Conclusions

In this chapter, research literature was reviewed that focused on collaborative professional learning activities in which reflective dialogue was either implicitly or explicitly discussed. The value of collaborative reflection is supported throughout the literature, but finding specific descriptions of the interactions in reflective dialogue proved to be more challenging. Using my conceptual framework based on theorists Dewey (1933), Mezirow (1991), Deci, and Ryan (1985), the literature focused on how reflective dialogue engages teachers in learning, including transformative learning, and serves to meet the psychological needs of belonging, autonomy, and mastery, thus motivating teachers to engage in learning.

Reflective dialogue that leads to learning and meets psychological needs was evident in several ways. The research was organized around the following themes: (1) how reflective dialogue both creates and is facilitated by a sense of team; (2) how reflective dialogue can become a form of accountability; (3) how reflective dialogue increases teacher expertise; (4) how reflective dialogue supports the uncertainty of learning and encourages risk-taking; and (5) how reflective dialogue sustains purpose and challenges perspectives. The final section of the review of literature explored the methodology used to investigate the nature of reflective dialogue.

Both Dewey (1933) and Mezirow (1991) proposed learning happens in community, in the presence of trusted partners. Deci and Ryan (1985) explained the sense of belonging is an innate

psychological need which must be met in the process of motivation. The theme of collegiality was consistent throughout most of the literature on teachers' collaborative reflection. The research showed reflective dialogue helped to build a sense of team among teachers (Chester et al., 2013; Ning, Lee, & Lee, 2015). Engagement in reflective dialogue also seemed to encourage even more purposeful engagement (Akoyl & Garrison, 2014; Brabham et al., 2016), which reflects Dewey's position that learning through reflection is intentional. This evidence supports the usefulness of reflection as a condition for learning and implies reflective dialogue includes language which encourages collaborative engagement.

Continuing with the theme of connectedness and a sense of team, the literature provided generalities about reflective dialogue which facilitated overcoming certain barriers to collegiality. Reflective dialogue encourages open discussions that facilitate deprivatization of a teacher's practice (Arnodah, 2013; Evans, 2012; Seashore Louis & Lee, 2016). Reflective dialogue includes language that challenges thinking (Evans, 2012) and reminds teachers of their shared responsibility (Owen, 2014).

The theme of accountability permeates much of educational literature in general and was well-represented in the literature reviewed here. My study will be conducted with teachers engaged in a process of peer review, which is often used as an evaluation method (Darling-Hammond, 2013). Using external accountability measures, such as high-stakes evaluations, can be detrimental to motivating teachers (Mausethagen, 2013; Ryan & Deci, 2016). In the literature selected, the concept of accountability through reflective dialogue did not focus on evaluation, but rather responsibility (Arslan & Ilin, 2013; Pullin, 2013). Although not explicitly described, reflective dialogue that includes reminders of partnerships (Mausethagen, 2013), shared commitments (Pullin, 2013), and social responsibility (Ramos-Rodríguez, Martínez & da Ponte,

2016) hold participants accountable. Reflective dialogue that includes discussions about common expectations or outcomes (Fullan, Rincón-Gallardo, & Hargreaves, 2015) and external accountability policies may support teachers' autonomous motivation to meet expectations.

The theme of reflective dialogue to build teacher expertise represented the research on this topic. Deci and Ryan (1985) claimed mastery was one of the innate psychological needs, which must be met for motivation to occur, and the research provided evidence that reflective dialogue can be a means for teachers to master their craft. However, some of the research also highlighted reflective dialogue as means for allowing teachers to choose what problems they would solve within their own experience and what solutions they would attempt, which represents Deci and Ryan's (1985) third psychological need, autonomy. Teachers feel motivated when they have choice within reflective practices and can self-direct (Deci & Ryan, 1985).

The literature revealed many ways in which reflective dialogue supported teacher learning, thus increasing their expertise. Learning is a process of problem-posing and problem-solving (Dewey, 1933). The research provided evidence that reflective dialogue helps teachers become aware of problems (De Neve et al., 2015), clarify those problems (Tam, 2015; Trust, 2012), and creatively solve problems (Trust 2012). Sometimes teachers merely engaged in advice-giving (Hendry & Oliver, 2013; Wang & Zhou, 2013) or sharing of resources (De Neve et al., 2015). Teachers also used collaborative reflection to analyze existing teaching practices (Kyndt et al., 2016) and implement new, best practices (Brendefur et al., 2014; Knight, 2012; Solomon et al., 2012).

Some of the literature described these kinds of reflective practices with specific examples of the language used. Probing questions and clarifying questions were described by Devlin-Scherer and Sardone (2013) and Danielson (2015). Questions become an important reflective

tool to form a common language (Kutsyuruba et al., 2015; Ramos-Rodríguez et al., 2016), a critical component of reflective learning, as described by Dewey (1933). In addition, McClanahan (2015) suggested reflective dialogue increased vocabulary, not just clarified it or made it common. Mezirow (1991) and Dewey (1933) claimed learning was a process of socially shared meaning-making. Individuals need other individuals with whom they can have discourse about their experiences. Therefore, the language, common vocabulary, and dialogic interactions become a critical component of learning.

The literature also discussed how reflective dialogue increases teacher expertise about their own professional learning. Postholm (2012) and Prytula (2012) discussed how teachers were able to explain their metacognitive understanding and strategies. Through reflective dialogue and the use of external data, such as video or observation notes, teachers were also able to think about their decision-making (Charteris & Smardon, 2013). In peer observation and feedback partnerships, the role of observer provided teachers with a different perspective on the thinking and decision-making taking place in the classroom, which also provided opportunities to increase their own expertise (Tenenberg, 2016). The literature provided evidence that reflective dialogue increased teachers' expertise in learning through collaborative reflection (Lin et al., 2013; Moore & Carter-Hicks, 2014). Additionally, Vázquez-Bernal et al. (2016) used changes in teacher practice, specifically reflective questioning, to measure the effects of their learning. The research recognized dialogue around the concepts and processes of learning were evident in teacher reflection.

The literature suggested reflective dialogue is facilitated using protocols (McDonald et al., 2013; Moore & Carter-Hicks, 2014). Effective reflective dialogue requires some skill and having protocols can provide the structure when participants are not trained or do not naturally

engage in reflective conversations (Gelfuso & Dennis, 2014). Using data was also proposed to facilitate reflective dialogue (Walsh & Mann, 2015). Establishing common vocabulary, using protocols, and reflecting on data are examples of intentional engagement in a process meant to produce learning and increase teacher expertise (Dewey, 1933).

Another theme in the literature was how reflective dialogue supported the uncertainty that comes with learning and the necessary risk-taking to learn new things. Reflective dialogue both facilitated this discomfort and supported teachers through the discomfort. In their theory of motivation, Deci and Ryan (1985) claimed mastery was one of the universal, innate psychological needs people experience and gaining mastery is a process requiring a support system. Engaging in reflective dialogue sometimes makes teachers feel emotionally and professionally exposed (Bell & Thompson, 2016; Brendefur et al., 2014). Reflective dialogue can also seem impolite if it pushes past natural boundaries of politeness (Hallam et al., 2015). Although these authors reported on this initial discomfort, all discussed ways in which reflective dialogue led to alleviating this discomfort and supporting the learning in taking risks.

The literature revealed ways in which reflective dialogue increased teacher self-efficacy, especially when facing professional challenges (Bell & Thompson, 2016; de Vries, Jansen, & van de Grift, 2014; Trust et al., 2016). Reflective dialogue helps teachers see themselves with more potential (Harper & Nicolson, 2013). Taking a risk and trying something new is also supported through reflective dialogue (Storey & Richard, 2015; Vanblaere & Devos, 2015). The literature within this theme did not provide specific examples of what reflective dialogue sounded like, but did include general discussions of supportive and encouraging language.

The final theme within the literature centers on Mezirow's (1991) critical element of transformational learning – meaning perspectives. The literature provided evidence that

reflection on teacher practices, such as instruction and decision-making; and products, such as student data and observational data, generates meaningful learning. However, there is specific research which supports Mezirow's (1991) claim that transformative learning requires reflection about purpose, beliefs, and the process of reflection itself. Teachers must be autonomously motivated for this kind of learning, which is why support throughout the literature for each of Deci and Ryan's (1985) psychological needs become so important.

The literature provided evidence that reflective dialogue reminds teachers of their purpose (Fullan, Rincón-Gallardo, and Hargreaves, 2015, Gu & Day, 2013). To facilitate this, the concept of space was presented by Patti et al. (2012) and Charteris and Smardon (2014). In the context of reflective dialogue, this may sound like pauses in the conversation or affirming statements which simply allow the other person to continue without judgment.

Transformational learning challenges the perspectives behind practices (Mezirow, 1991). The literature included examples of teachers reflecting on their beliefs about teaching and learning (de Vries, van de Grift & Jansen, 2014; Tam, 2015; Woodman, Richard, & Maria, 2015). When given enough time (Brendefur et al., 2013), teachers discuss and challenge their perspectives about strategies (Harper & Nicolson, 2013), pedagogy (Hepple, 2012), and personal worldview (Biktagirova & Valeeva, 2014). This level of reflection included dialogue around video data (Tripp & Rich, 2012) and negotiating and reframing understanding (Hepple, 2012).

This kind of learning is not limited to teaching practices, but also includes the practice of reflection. Tam (2015) and Moore and Carter-Hicks (2014) provided evidence that reflective dialogue extends to the practice of reflection itself. Expanding on that, Farrell and Jacobs (2016) suggested reflection should include a thoughtful consideration of the context of one's own

learning, including the social and cultural influences. Reflecting on reflective dialogue can lead to transformational learning (Charteris & Smardon, 2013).

Concluding the review of literature, I analyzed the methodology used in current research on the topic of reflective dialogue. The value of reflective dialogue can be studied using a variety of approaches, such as surveys or questionnaires, interviews, and observations. Longitudinal studies can reflect changes over time. Both qualitative and quantitative data can be collected to describe the value of reflective dialogue as a practice. The nature of reflection, however, demands a dialogic approach which investigates the interaction (Mann & Walsh, 2013, van Kruinigen, 2012). Understanding the interaction of reflective dialogue requires research into the language and the discourse processes that teachers use. This approach focuses on conversation analysis (Kim & Silver, 2016, Walsh & Mann, 2015).

There were limited examples within the research which generated detailed findings about the language used in reflective dialogue. These examples used similar processes, including semi-structured interviews and recorded conversations. Interview questions focused on reflective dialogue (Charteris & Smardon, 2013; McClanahan, 2015; Tam, 2015). Collaborative conversations were transcribed, coded, and analyzed (Akyol & Garrison, 2014; Glazier et al., 2016; Hendry & Oliver, 2012; Owen, 2014). Additionally, there was one example of content analysis, rather than discourse analysis, which provided a complex analysis of reflection (MA, 2013).

Reflective dialogue between a researcher and participant was also a subject for research within the literature. Charteris & Smardon (2014), Prytula (2012), and Way, Zwier, and Tracy (2015) asked teachers to review their transcribed or recorded conversations and engage in reflective dialogue with the researcher(s). These reflective conversations were then recorded,

transcribed, coded, and analyzed for additional insight into reflective dialogue. Way, Zwier, and Tracy (2015) suggested transformative learning could be an outcome of a research approach which included reflecting on reflection.

Based on this review of literatures, which develops and applies a conceptual framework using Dewey (1933), Mezirow (1991), and Deci and Ryan (1985) to understand teacher learning and motivation, there is sufficient reason to suggest an investigation examining the interaction of reflective dialogue would produce socially significant findings. I can, therefore, claim the literature review has provided strong support for pursuing a research project to answer the following multi-part research question: (1) how do high school teachers experience dialogic interactions within reflective dialogue, (2) what evidence of learning is present in the interaction of high school teachers' reflective dialogue, and (3) what factors of motivation are present in the interaction of high school teachers' reflective dialogue?

Chapter 3: Research Method

The purpose of this hermeneutic phenomenological study is to identify and describe the dialogic interactions in reflective dialogue among high school teachers that show professional learning and support for self-directed motivation. The practice of collaborative reflection is defined broadly by many, making it difficult to facilitate or evaluate (Farrell & Jacobs, 2016; Mann & Walsh, 2013; Ramos-Rodriguez, Martínez, & da Ponte, 2016). Although much of the research on reflection describes the outcomes of reflective practice (Mann & Walsh, 2013), studies do explore the nature of the interaction of reflection among teachers. The research literature reviewed in Chapter 2 provided insight into how reflective dialogue provided important learning opportunities for teachers and supported their professional development. Although these studies provided important insights into the nature of reflection, few took a comprehensive qualitative look at the interaction of reflective dialogue.

This study examines the experiences of high school teachers engaged in reflective dialogues and provides descriptions of their interactions, as well as participants' interpretations of those interactions. My conceptual framework explained the position that was used to study reflective dialogue (Machi & McEvoy, 2012). The following theorists contributed to the creation of the framework. Dewey (1933) provided an understanding of dialogue as a process for learning. Mezirow (1991) added to this with an explanation of how critical reflection through dialogue leads to transformational learning. Deci and Ryan (1985) provided an understanding of how and why individuals are motivated to learn through reflective dialogue. Using this framework, I argue a complex description of the dialogic interaction of reflective dialogue can provide an understanding of how reflective dialogue facilitates learning and supports motivation.

This chapter provides a detailed description of my study. The first sections provide a discussion of the rationale for choosing a hermeneutical phenomenological approach to describe the interaction of reflective dialogue among high school teachers. This is followed by an explanation of my role within the study. The methodology section describes how the study was conducted: how participants were selected, how data were collected, what instrumentation were used, and how the data were analyzed. Finally, this chapter includes a discussion of how I established a trustworthy study, specifically how internal validity, external validity, dependability, confirmability, and ethical procedures were addressed.

Research Questions

1. How do high school teachers experience dialogic interactions within reflective dialogue?
2. What evidence of learning is present in the dialogic interaction of reflective dialogue among high school teachers?
3. How is self-directed motivation supported in the dialogic interaction of reflective dialogue among high school teachers?

Research Design and Rationale

In educational research, a single approach is often inadequate because what is studied is usually specific, but also general; particular, but also universal; or concrete, but also abstract (Hartas, 2015). This paradox holds true for the interaction of reflective dialogue. I determined the approaches that guided the focus and processes within the study. This section describes my research design and provides the rationale and theoretical perspective of the approaches and methods used.

I used a qualitative research design for my study. Qualitative research provides rich and descriptive data through the study of experiences (Packer, 2011). Analysis of this kind of data

requires the use of a theoretical lens and the reflexivity of the researcher to interpret the data and provide a description (Heidegger, 1962). A rich and complex description of the interaction of reflective dialogue among high school teachers requires a qualitative approach. In this section, I explain my rationale for this choice.

My research questions for this study explore the dialogic interaction, the language that is used and what is heard and experienced, during reflective dialogue. I wanted to provide thorough descriptions of the dialogic interactions within teachers' reflective dialogue and how the participating teachers experience learning, autonomy, competency, and relatedness within those interactions. Creswell (2013) explained, in qualitative research, data collection is a process of meaning-making between the researcher and the participants. A focused qualitative approach was more appropriate because the data were socially constructed through the process of dialogue. A qualitative approach allowed me, as the researcher, to explore the experiences of the participants engaged in reflective dialogue to determine the dialogic interactions that supported learning and motivation.

Both quantitative and mixed-methods research have been used to study reflective dialogue by other authors. In contrast to the perceived subjectivity of qualitative research, quantitative research is viewed as objective and based on the scientific method, which allows for testing of hypotheses (Packer, 2011). The difference between the two approaches is evident in the methods for collecting data and the kind of data produced. Quantitative research provides explanations by studying causes and collecting data on the effects using statistical analysis. Numeric data points are collected in quantitative research using instruments such as closed-ended checklists, public and private documents and records, surveys and questionnaires (Maxwell, 2016).

In the review of literature on reflective dialogue, several examples of quantitative approaches were found. Hilden and Tikkamäki (2013) analyzed data generated by a questionnaire designed to better understand reflection. An online questionnaire capturing teachers' beliefs was used by de Vries, van de Grift, and Jansen (2014). Ning, Lee, and Lee (2015) also used an online questionnaire to assess the role of team value orientations and collegiality in team collaboration. Descriptive statistical methods allowed these authors to answer questions regarding impact and effect.

Using a broad description of reflective dialogue, Biktagirova and Valeeva (2014) used statistical analysis on collected self-reported data. This approach generated an understanding of teachers' engagement in reflective dialogue, but did not provide insight into the reflective dialogue itself. Biktagirova and Valeeva's study is an example of how quantitative research does not provide an opportunity between the researcher and participants to experience a shared process of meaning-making (Dewey, 1933; Mezirow, 1991). Instead, the researcher assumed meaning in the instrument and the participant assumed his or her own meaning. There was not a process for creating a shared understanding of the survey, therefore there was not an opportunity to generate a rich descriptive account of reflective dialogue between the researcher and participants. Quantitative data could, however, provide insight into teachers' experiences with reflective dialogue, such as effect on practice (Biktagirova & Valeeva, 2014) and engagement (Camburn & Han, 2015; de Vries, 2014; Vanblaere & Devos, 2015).

Ixer (2016) argued quantitative data generated from self-assessments are more appropriate for the study of reflection because reflection is primarily a hidden process. He advised that researchers limit their studies to measureable outcomes of individual reflection. Ixer claimed the lack of clarity in the literature on clear descriptions of reflection necessitate a

reconceptualization of reflection as a process only available to the individual, suggesting researchers provide ways to allow students to self-assess their reflection.

I argue my study allowed for self-assessment through a qualitative approach. The second and third reflective sessions of data collection, which are described in this chapter, generated qualitative data composed of socially constructed self-reflection. Using a qualitative approach that included self-assessment, allowed the participants and me to come to a shared understanding of meaning about the participants' experience. Participants themselves observed and confirmed their reflective processes.

A third approach was available, but not chosen for this study. The practice of mixed methods in research releases the researcher from the restrictive bonds of choosing between either qualitative or quantitative designs. According to Johnson and Onwuegbuzie (2004), mixed methods research is a class of research in which qualitative and quantitative research are combined in a single study. Creswell (2013) explained mixed methods requires the researcher to collect and analyze both qualitative and quantitative data. Johnson and Onwuegbuzie (2004) proposed greater understanding of a research question and greater confidence in a conclusion can be the result of this more pragmatic approach to conducting research. This approach empowers the researcher to seek the best answer to the question by choosing methods based on needs and values, instead of a philosophical position on how something can be known or understood in the first place (Creswell, 2013).

In the review of literature on reflective dialogue, examples of mixed methods research designs included Tseng and Kuo (2014), who used semi-structured interviews and an online survey; Brabham et al., (2016), who used observations and a survey; and Lin et al., (2013), who

used experimental data and transcript data from teacher reflection. Because my study focused only on qualitative data, a mixed methods approach was not appropriate.

Creswell (2013) identified five approaches to qualitative research; narrative study, phenomenology, grounded theory, ethnography, and case study. Although each of these approaches is employed for the purpose of describing and explaining a lived experience, there are significant differences in their foci, methods used, and framework for the study. A narrative approach was not particularly useful for describing a common practice, such as reflective dialogue. A grounded theory approach was also not appropriate, because my research questions do not require a new theory. However, ethnography, case study, and phenomenology were three approaches I considered. In this section, I explain my rationale for choosing a phenomenological approach over the others.

Ethnography is an approach which focuses on a culture-sharing group (Creswell, 2013). Peer review teams can be considered such a group, however I did not use ethnography as an approach, because my research questions were focused on the phenomenon of reflective dialogue, not on the groups who engage in it. In the review of literature, cultural aspects associated with reflective dialogue were discussed, such as the importance of teachers' culturally responsive dispositions (Charteris & Smardon, 2014) and higher rates of engagement by African American teachers (Camburn & Han, 2015). Socio-cultural elements were evident in the reflective dialogues within my own study, specifically gender as it related to dominance in the dialogues. Although I did not use an ethnographic approach, I paid attention to these cultural tones as they appeared in the data and reported them as part of the description of reflective dialogue.

Case study is an approach in qualitative research in which the researcher wishes to study a problem or phenomenon within a bounded system (Creswell, 2013). Several examples of case studies were present in the review of literature in Chapter 2. Hallam et al. (2015) used a matched case study approach to understand trust within a Professional Learning Community (PLC). The authors noted the two cases they selected allowed them to explore how trust was facilitated and developed within those systems as a social phenomenon. Owen (2014) also used a PLC as a case study to research collegiality. Charteris and Smardon (2014) used several small groups of teachers engaged in collaborative peer coaching to study the process. My research did, indeed, take place in a bounded system of high school teachers participating in peer review. However, the focus of my research was not on the cases I selected, but rather the phenomenon of reflective dialogue which I accessed through these cases. Therefore, a phenomenological approach is most appropriate for my study.

Phenomenological research considers the lived experiences of multiple individuals and describes a common meaning (Creswell, 2013). In both philosophy and research design, phenomenology continues to be widely debated and includes multiple approaches (Kafle, 2011). The historical origins of phenomenology come from Husserl's (1983) philosophical conception of a detached way of knowing, which has yielded transcendental phenomenology. Although this is a commonly understood approach in educational research, it is only one of many options for research (Moustakas, 1994). This study combined hermeneutics with phenomenology for an approach that allowed me, as the researcher, to be embedded in the experience of reflective dialogue and explore beyond the objective description of the phenomenon to the subjective interpretation of the experience.

To understand hermeneutical phenomenology, it is important to understand how it differs from its origins in transcendental phenomenology. Husserl (1983) claimed a transcendental approach allows for a description of meaning only after suspending all personal assumptions. Moustakas (1994) explained transcendental phenomenology required reductions or bracketing, which he described as a process of clearly establishing distinctions between subject and object, and between essence and existence. In an approach called hermeneutic phenomenology, Heidegger (1962), a student of Husserl, argued finding meaning required a shift in the researcher's stance; from one of transcendence to one of situated being. Heidegger believed lived experiences could only be described through an interpretation of their meaning, which requires the researcher to be embedded in the experience and in the creation of its meaning. For Heidegger, subjectivity and objectivity, along with essence and experience, are dependent on each other. This hermeneutic stance allows the researcher to interpret an experience by uncovering what is behind the objective phenomena (Moustakas, 1994).

Hermeneutics, as a singular concept, deals with interpreting literary texts (Moustakas, 1994). Life can also provide texts, or lived experiences, which necessitate interpretation (Packer, 2011). Combining hermeneutics with phenomenology results in an approach which describes *and* interprets the meaning of experiences (Friesen, Henriksson, & Saevi, 2012). A key figure in taking hermeneutic phenomenology out of the philosophical realm and applying it as a research method was van Manen (1997). Hermeneutic phenomenology requires the researcher to be concerned and involved, but not necessarily engaged in the practical social activity under investigation (van Manen, 1997). The researcher must reflect on situations as a participant in creating meaning of the experience with other participants. Although bracketing is not required,

van Manen explained the researcher must disclose her assumptions and co-create meaning with the participants in full transparency.

Friesen et al. (2012) described hermeneutic phenomenology as the art and science of interpreting meanings from experiences. Both the science and the art of this approach can be problematic. First, there is no one way to conduct a hermeneutic phenomenological study (Kafle, 2011; Moustakas, 1994; van Manen, 1997). Friesen et al. challenged researchers to focus on the research question and pursue its answer. Moustakas (1994) said this about the research question: “It creates a thirst to discover, to clarify, crucial dimensions of knowledge” (p. 43). By remaining focused on discovering the essence of the phenomenon, the researcher can utilize any appropriate methods until she reaches her goal (Kafle, 2011).

It is incumbent upon the researcher to conduct a scientific study that produces clear descriptions, but hermeneutic phenomenology also requires an aesthetic narration of the meanings perceived by participants (Kafle, 2011). The art of interpreting meaning can be especially problematic in scientific circles (Friesen et al., 2012). In hermeneutic phenomenology, it is appropriate for the researcher to use an informal and expressive tone when reporting the authentic explanations of experiences from the participants’ perspectives (Kafle, 2011). In their explanation of this approach in education, Friesen et al. claimed the art of phenomenology is best achieved when the reading of the research becomes, on its own, a felt experience for the reader. Van Manen (1997) described this as a richness that brings an aesthetic quality to the research report. Friesen et al. cautioned, however, the intended audience of the report must be considered.

The essence, or essential meanings, of phenomena are the focus of a phenomenological approach (Kafle, 2011). In providing a good description of essence, a researcher must reveal the

structure of a lived experience in such a way that its previously unseen significance can be understood (van Manen, 1997). In his discussion of essences, van Manen cautioned against an oversimplification of essence. He claimed the concept of essence in phenomenology is highly complex and establishing an absolute essence poses moral dilemmas. Van Manen encouraged a view of essence within hermeneutic phenomenology as a fascinating and unending conversation about the essential understandings of a lived experience through the multidimensional perspectives of both the participant and the researcher. In this study, the phenomenon being investigated is the dialogic interaction in teachers' reflective dialogue. Through description and interpretation of this phenomenon, I will attempt to uncover the essential meanings of these dialogic interactions (Kafle, 2011).

Phenomenology is inquiry into a lived experience as it is experienced *before* reflection, or pre-reflectively (van Manen, 1997). This creates a challenge in my study because the phenomenon *is* reflection and participants struggled to distinguish between pre-reflective experience and post-reflective experience. Packer (2011) explained phenomenology is based in the way people understand and conceptualize the experience. Moustakas (1994) discussed the idea of pre-reflective experiences and noted these could not be accessed without the use of language. In the same way, Dewey (1933) and Mezirow (1991) explained understanding and conceptualization are products of reflection and are not accessible to individuals without reflective dialogue. In order to describe and interpret a lived experience, a person must be able to reflect on and articulate that experience pre-reflectively. Hermeneutic phenomenology is an appropriate method even when insights are attained *during* reflection. However, in the analysis of the data from this study, distinctions will be made about how the experience was interpreted pre-reflectively and through reflection.

The review of literature yielded two examples of phenomenological approaches in studies which included teacher reflective practice. Prytula (2012) described her phenomenological approach as a constructive study of teacher metacognition. The researcher used the bounded context of a PLC because it provided an environment for metacognition. Prytula cautioned her results could not be generalized, but did provide a deep description of metacognition as a phenomenon. Gu and Day (2013) also chose a phenomenological approach for studying how teachers interpreted their work lives over a four-year period. The authors noted this provided teachers' perspectives of their lived experiences. None of the authors offered details about the kind of phenomenological approach they used.

For my study of reflective dialogue among high school teachers, I used a hermeneutic phenomenological approach, as described above. This approach allowed me to participate in the meaning-making process with my participants. The phenomenological approach also allowed me to focus on the dialogic interaction in reflective dialogue as a phenomenon, with the intent to describe the essence of the experiences teachers had in those interactions. This approach is most closely aligned with an inquiry into understanding the experiences of support for learning and motivation that teachers experience and express during reflective dialogue (van Manen, 1997).

Qualitative research is a valid way to explore and discover the problems and solutions related to a research question (Creswell, 2013). I demonstrate the way my qualitative research was conducted, how the data were analyzed, and ways the findings are trustworthy, valid, and applicable. The following sections in Chapter 3 will explain and describe how I conducted a qualitative inquiry using a hermeneutic phenomenological approach to describe and interpret reflective dialogue among high school teachers.

Role of the Researcher

My role as a qualitative researcher was to generate detailed descriptions, develop themes, and interpret the data using perspectives researched in the literature. I was not invisible nor did I portray myself as an objective voice of authority, but rather as a real person with specific interests and ideas (Silverman, 2016). In taking a hermeneutic phenomenological approach to this study, I did not bracket my own assumptions and experiences in the data analysis; instead, I acknowledged them and reflected on them throughout the study (van Manen, 1997). I did not, however, disclose my assumptions to the participants during the study. During Session 3, I took on the role of co-creator of meaning, embracing both objectivity and subjectivity, experience and essence during the dialogue (Moustakas, 1994).

My role as researcher was influenced by my own experiences with collaborative and professional reflective dialogue. My early professional experiences were primarily in isolation. I did not experience meaningful collaborative learning through reflective dialogue until I enrolled in a graduate program for teachers. Several years later, I worked as a supervising teacher for homeschool families, which provided important opportunities for the development of my dialogic skills. In recent years, the majority of my professional responsibilities have required collaborative skills and reflective dialogue. These experiences may have influenced both the objective and subjective stance required in hermeneutic phenomenology. Therefore, I designed this study using a structured methodology and used the practice of reflexivity to provide a transparent research report. I provide a description of my assumptions as part of the discussion on data collection and analysis in Chapter 4.

My role within this study was also influenced by my role in the participating district. At the time of data collection, I was a teacher and instructional coach at one of the district's high

schools. Both of these roles were communicated and clarified for participating teachers in this study. As an instructional coach, I had a leadership role among my own colleagues, but this did not extend to teachers in the other high schools. My leadership role did not involve any evaluation of teachers and, therefore, did not pose a risk to participants in this study. By recognizing my own positioning in relation to the participants' views, perceptions, and experiences, as well as the participants themselves, I avoided bias and engaged in the intersubjectivity of authentic conversations (Maxwell, 2012; Silverman, 2016).

This study was designed with three sessions in which I, as the researcher, took on specific roles. In the first reflective session, peer review teams met to engage in reflective dialogue. My role was that of observer, as I was not engaged in the interaction of peer review or in any of the reflective dialogue. I separated myself from participating in the dialogue, however, participants knew that I could hear what they said. Each participant occasionally looked at me, which was an acknowledgement of my role (Packer, 2011).

In the second reflective session, I moderated the discussion among the same peer review team in a focus group. As the moderator, I facilitated participants' reflective dialogue with each other using the instructions in Appendix E. I did not participate in the reflective dialogue other than to ask clarifying questions that provided extended answers. My secondary role in the first and second sessions was that of interpreter, both during the data collection and data analysis. I took on the role of interpreter when I asked questions during Session 2 and as I analyzed the data to identify critical incidents of learning and motivation prior to Session 3.

In the third reflective session, as I interviewed individual participants and engaged them in reflective dialogue, my role was as the key instrument for gathering information (Creswell, 2013). By using a set of prewritten interview questions aligned with this study's conceptual

framework (Appendix F), I was able to remain neutral. Additionally, I used probing questions and member reflections as described by Way, Zwier, and Tracy (2015) to prompt deeper reflection in the interview.

Within this hermeneutic phenomenological study, my role included that of interpreter (Moustakas, 1994). Prior to the third session, I analyzed the transcription data using a self-designed, theory-based coding system (Appendix K) and conversational analysis (Appendix L) to find critical incidents in the dialogic interactions from Sessions 1 and 2. During Session 3, however, my role as interpreter required on-site interpretation of the data as it was being generated and analyzed alongside the participants. This embedded role of interpreter is what Moustakas (1994) described as a hermeneutic stance, which allows the researcher to interpret an experience from within it.

In the third session, I also took on the role of participant in the process of reflective dialogue. Engaging in reflective dialogue with the participants was a risk, because it rejected a neutral stance within the study (Packer, 2011). However, Packer noted this stance promotes a new way of knowing and understanding the participants as complex and sophisticated beings, not just objects. By taking on this role, I submitted myself, as a reflective researcher, to potential transformation. “When we understand another person, we don’t merely find answers to our questions about them (let alone test our theories about them) but are challenged by our encounter with them. We learn, we are changed, we mature” (Packer, 2011, p. 5).

Methodology

Naturalistic observations, focus groups, and semi-structured interviews were used to conduct this study. Using these methods, I conducted three sessions of research in which the participants engaged in reflective dialogue. A combination of methods in sequential sessions

created multiple sources which produced multiple reflective dialogues for analysis.

Triangulation developed through multiple sources: naturalistic observations, focus groups, and semi-structured interviews (Patton, 1999). By employing more than one method to collect data to build an understanding of the phenomenon of reflective dialogue, my research design met the requirements for triangulation (Cohen & Manion, 1994). This section provides an overview of each of the three sessions, followed by a detailed account of the study.

Overview of Sessions

In Session 1, naturalistic observations allowed me to directly observe the phenomenon under investigation in a setting in which it naturally occurs, and is or is representative of real life (Angrosino, 2016). In this session, teachers engaged in reflective dialogue as a peer review team in their natural setting under typical conditions and expectations for their particular team, so as to represent their real-world experiences. As naturalistic observation is described by McMillan (2012), I was a passive participant by observing without becoming part of the peer review teams' reflective dialogue. Observation was used, not only to hear the reflective dialogue of high school teachers, but to see it. Throughout the observations, I recorded reflective field notes that documented my own ideas, feelings, interpretations, and impressions, in a practice called reflexivity (Packer, 2011). I used the field notes to assist in the data analysis, but they were not included as part of the data.

In Session 2, focus groups allowed me to engage participants in reflective dialogue around their own data (Krueger & Casey, 2015). Focus groups are used to collect data from a small group of people using a planned discussion, which requires a moderator to provide some structure for the discussion (Olson, 2011). I acted as moderator in Session 2, while participants in their peer review teams discussed their transcripts from Session 1. Participants were informed

of the instructions and expectations (Appendix E). Discussions about reflection generated the conditions for reflective dialogue among participants; reflection of reflection, as described by Mezirow (1991).

In Session 3, semi-structured interviews allowed me to engage participants in reflective dialogue about their experiences in and perceptions about the reflective dialogues from Sessions 1 and 2. Brinkmann (2013) distinguishes semi-structured interviews from unstructured and structured interviews explaining they lay somewhere in between the two opposites in a continuum. Most interviews in qualitative research are semi-structured (Brinkmann, 2013), which was the case in the literature reviewed in Chapter 2 of this study. Kvale and Brinkmann (2008) defined a semi-structured interview “as an interview with the purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena” (p. 3). Semi-structured interviews are usually used in a later phase of the research, which allows the researcher to construct questions around data that has already been collected (Olson, 2011). This is especially relevant in my study, because the semi-structured interviews were conducted in the third reflective session as a follow-up to the reflective dialogues between teachers in Sessions 1 and 2. I did begin, however, with a set of structured questions (Appendix F).

Research methods are a component of the overall design and include selecting settings and participants, establishing relationships within the research, collecting data, and analyzing the data (Maxwell, 2012). The following sections in methodology will provide a thorough description of each component of the research design, how they were informed by current research, and how they relate to each other. The first section describes my logic for selecting research participants. The procedures for recruitment, participation, and data collection are

explained in the next section. In the third section, the treatment used in the research design is discussed, followed by the instrumentation in the fourth section. Finally, the last section of methodology discusses the plan used for analyzing the data.

Participant Selection Logic

The target population for this study was the high school teachers in the participating district; a large, urban, Midwestern, public school district. The teachers in my own school were not included in the target population to avoid researcher bias. The total population was 228 high school teachers, composed of 107 males and 121 females. Of the total population, five identified as Black, three as Latino or Hispanic, two as other, and 208 as White. Recruitment for this study targeted everyone within the whole population.

To access high school teachers engaged in reflective dialogue, I chose to recruit established peer review teams from the total population. Participants for this study were selected as a team. In the state in which this study was conducted, peer review is a state-wide, annual requirement for all public school teachers described as a collaborative, open examination of teaching practices by peers, intended for self-improvement and improved teaching effectiveness. Peer review provides teachers with professional development by offering the opportunity to engage in collaborative reflection on their teaching products, practices, and perspectives (Bell & Cooper, 2013). A meaningful peer review results in open co-examination of the tools and systems created for teaching (products), the activities, rituals, and strategies used in teaching (practices), and the beliefs and assumptions behind those products and practices (perspectives) through meaningful dialogue (de Vries, Jansen, & van de Grift, 2013). A description of how peer review is practiced in the participating district is provided in Chapter 4 to describe the sample.

Camburn and Han (2015) found all socially-situated professional learning experiences in which teachers are engaged were strongly associated with reflective practice. Therefore, I concluded any systematic, intentional, collaborative engagement between at least two teachers in which their teaching products, practices, and/or perspectives were opened to each other through dialogue could provide an appropriate context for my research on reflective dialogue. I chose to use the practice of teacher peer review for the context of my study because it operationalizes reflection as reflective dialogue. As teachers participate in peer review, they participate in the phenomenon under investigation.

Brinkmann (2013) claimed small amounts of qualitative data which provide a rigorous and thorough description of the phenomenon are preferable to broad and abundant data. Silverman (2000) noted, because each participant represents a unique interpretation of the phenomenon under investigation, multiple participants provide a deeper understanding. Giorgi (2008) claimed at least three participants are needed for a phenomenological approach. Taking these views into account, it was logical that two peer review teams, composed of at least two teachers each, would allow for a rich, descriptive account of reflective dialogue.

Maxwell (2012) cautioned the use of convenience sampling in which the researcher uses whoever is available as participants. Although I planned for purposeful sampling in this study, only four teachers agreed to participate and I accepted their availability. I had attempted, however, to use purposeful sampling in choosing participants who met important characteristics and conditions of typicality. Characteristics and conditions of typicality for a peer review team included: (a) size, (b) years together, (c) meeting locations, (d) level of understanding of the peer review process, (e) frequency of collegial reflective dialogues, and (f) years of teaching experience. In order to guard against selecting participants who were outside of what may be

considered by my readers as normal or typical, I attempted to select those who were most typical. The following paragraph describes the process I used for determining typicality for these characteristics and conditions.

To describe a typical peer review team for my study, I created a brief and anonymous survey (Appendix J). This survey was designed to poll high school teachers who were required to participate in peer review. The survey was created in and collected through Qualtrics, an online service. After creating the survey, I distributed a URL generated from Qualtrics via email to teachers in 12 local high schools, including eight outside of the participating district. I allowed one week for volunteer and anonymous completion of the quiz. After collecting the data, I analyzed it by finding the mode for each data set in the survey to determine typicality (Adams & Lawrence, 2014). My findings produced a data-based description of a typical peer review team and are discussed in Chapter 4. I attempted to purposefully select the participants for my study using this description. Recruitment procedures for a purposeful sample, procedures for participation, and procedures for data collection are outlined in the next section of methodology.

Procedures for Recruitment, Participation, and Data Collection

Recruitment. Although Moustakas (1994), Friesen et al. (2012), and van Manen (1997) claimed hermeneutic phenomenology follows no specific methodological procedures, the procedures that are used are an important component because they help validate the study, not in how they are followed, but by the extent to which the procedures make the phenomenon accessible (Creswell, 2012). Procedures for recruitment, participation, and data collection were proposed to and approved by the Concordia University Institutional Review board prior to the study being conducted.

Participants were initially chosen based on the following criteria: (1) at least two members of the peer review team volunteered to participate, which is the state-required minimum for a peer review team and acceptable in the participating district; (2) each participant had a current Individual Professional Development Plan; (3) each participant consented to the collection and use of reflective dialogue data from each session in my study (Appendix C); and (4) the participants and their team resembled a typical peer review team, as described using survey data (Appendix J).

Although the practice of peer review is required of all high school teachers in the selected school district, participating in this study was not. Therefore, volunteer participants were recruited through an e-mail request using my private e-mail account and the e-mail addresses provided by the participating district (Appendix I). The e-mail request outlined the purpose of the research and what engagement was required of participants. The e-mail also explained the regulations and provisions set by district administration and provided a copy of the proposed consent form (Appendix C). Possible professional benefits, such as increased expertise in reflective dialogue, were outlined in the e-mail. Potential participants were asked to reply in one week to be considered for participation.

This initial request for participants only yielded two volunteers from one peer review team. Because at least two teams were required, a request for recommendations of peer review teams from instructional coaches in the high schools was sent. No responses were received, so a second request was made in person. I asked individual instructional coaches to suggest potential participants, which yielded a list of eight teachers. I contacted these teachers and I personally solicited their participation. One teacher volunteered, but could not get someone to participate with her because she was not part of an established peer review team. After several requests and

multiple rejections, a second teacher agreed. This teacher was also not a part of an established peer review team, but had frequently engaged in reflective and professional dialogue with the other teacher. They agreed to function as a peer review team together for this study and will potentially continue in the future.

The purpose of this study is to describe the dialogic interactions of high school teachers engaged in reflective dialogue. Peer review teams using the Individual Professional Development Plan (IPDP) process were expected to provide access to teachers engaged in reflective dialogue. The recruitment procedures produced only one established peer review team. The second team of willing participants, which formed in order to participate in this study, agreed to engage in reflective dialogue. Although not an established peer review team, these two high school teachers were friends and had previously collaborated as colleagues. Because this study is focused on reflective dialogue and not the IPDP process itself, I accepted their participation in my study because they engaged in reflective dialogue. There were no changes in the proposed procedures or focus of the study.

Participation. I obtained permission from the participating district prior to recruitment (Appendix H). I discussed the purpose and proposed methods for my research with the district's administration and obtained permission to use volunteer teachers as participants according to the procedures outlined in my proposal. Additionally, while the participants were engaged in the process of peer review (Session 1 of data collection), the district allowed them to use contracted hours devoted to professional development, because this was considered an expected practice of teachers. While participants were engaged in reflecting on the peer review reflective dialogue (Session 2), they could also use contracted hours. However, the interviews (Session 3) were conducted outside of contracted hours in a classroom or office within the school. All my data

analysis and reporting was conducted outside of my contracted teacher hours. I also received permission to use the classrooms and offices for the purposes described.

Prior to participating, the four high school teachers who volunteered were asked to sign the consent form (Appendix C). A signed copy of each consent form was saved as a PDF in an encrypted digital file. Subsequent participation required engagement in three sequential sessions of reflective dialogue using procedures outlined for the study.

In Session 1, participating teachers met with their peer review team during non-teaching contract hours to reflect on the progress of their Individual Professional Development Plans. This reflective dialogue was recorded and transcribed. I was present as a nonparticipant observer. Session 1 relied on the instructions provided by the district for the peer review process (Appendix D). The participants expressed that they did not remember any specific instructions about the IPDP peer review, so they were provided time to review the documents (Appendix D). Session 1 took approximately 30 minutes for both teams. Participating teachers met in the location typically used by their peer review team for meetings: Team A met in an office and Team B met in a member's classroom.

In the first session, participants were asked to use the existing practice of peer review as established by the state and their school district. All four participants stated they were only somewhat familiar with the details of the district's requirements for the peer review policies. All four participants also expressed never having been held accountable to the process other than having to turn in their Individual Professional Development Plan (IPDP) at the beginning of the year. This matched my own experiences with and assumptions about high school teachers' depth of involvement in the IPDP. Prior to participating in the study, I directed participants to the district's resources on the IPDP and peer review process. At the beginning of Session 1, I

provided printed copies of the district's policies and invited participants to discuss it with each other prior to recording the session. The purpose of this study is to describe the dialogic interactions that support learning and motivation in high school teachers' reflective dialogue; it is not focused on the process of peer review itself. Therefore, it was not necessary for participants to follow the district's procedures for the peer review, only that they be prompted to engage in reflective dialogue around their individual goals. The peer review process did provide both teams with a starting point for reflective dialogue and included as a study instrument.

Prior to Session 2, each participant was provided a PDF copy of the transcript from Session 1. Session 2 was scheduled through e-mail. For this session, participating teachers met with their peer review team during contract hours to reflect on the transcript from Session 1. This reflective dialogue was recorded and transcribed. This session was conducted as a focus group in which I moderated the session, but did not engage in their reflective dialogue (Krueger & Casey, 2012). My plan for moderating was to review the norms and instructions, provide the transcripts, and redirect participants to the task if needed.

In Session 2, the participating teachers were instructed to reflect on the transcripts of reflective dialogue from Session 1 using a self-designed dialogic protocol (Appendix E). I created this procedure to generate the conditions for what Mezirow (1991) described as reflecting on reflection. Neither team used the protocol as it was written, but did engage in reflective dialogue about their transcripts. Session 2 took approximately 30 minutes for both teams, concluding when teachers had reflected on the entire transcript from Session 1. Participating teachers met in the location typically used by their peer review team for meetings.

Each of the final sessions, a total of four semi-structured interviews, were scheduled via email with individual participants. I set up appointments with participants outside of contract

hours in each participant's office or classroom. In Session 3, participating teachers met individually with me to reflect on transcripts from Sessions 1 and 2. Using transcript data from Sessions 1 and 2, participants answered my questions in a semi-structured interview regarding the transcript data and their perceptions of the reflective dialogue (Appendix F). Each participant and I also engaged in reflective dialogue, during which I solicited their own analysis and interpretation of the transcript data. Participants were asked to describe their experiences during critical incidents of dialogic interactions. Three of the interviews took approximately 90 minutes and the fourth took 30 minutes.

During Sessions 1 and 2, each participating member of the peer review team was asked to abide by any previously established team norms, as well as maintaining confidentiality, avoiding making judgements, allowing each other the space to articulate thinking, and taking risks in learning (Charteris & Smardon, 2014). These expectations were articulated in the consent form (Appendix C) and the instructions for each session (Appendix D and Appendix E). They were provided in written format and verbalized prior to each session.

Data collection. Data collection in all three reflective sessions were transcriptions from a digital recording of the interactional phenomenon of reflective dialogue. In a similar research study, van Kruiningen (2013) argued digital recordings were preferable to video cameras, because the presence of cameras were more intrusive and ran counter to the non-evaluative intention of the researcher. Following the formal collection of data in Session 3, each participant was provided with the researcher's contact information for any follow-up thoughts or insights to add to the data.

A freelance transcriptionist with some previous experience was used to assist with the process of data collection. She signed a Confidentiality Agreement (Appendix M). I gave her

the audio files for each session on an encrypted file drive, which she also used to save the transcript documents. We communicated by phone and in person between sessions to coordinate delivery of files. She was compensated for her services.

The transcript data were key to gathering additional data in the reflective sessions. The second and third reflective sessions created the conditions for reflective dialogue by using transcript data from previous sessions. The transcripts from Session 1 were sent to each participant via email in PDF format approximately one day before Session 2 and transcripts from that session were sent prior to Session 3. Participants were instructed not to discuss the transcripts with each other prior to the next session. All participants provided verbal confirmation that they had not discussed the transcript prior to the session. The transcript were also printed for each participant and provided at the beginning of each session. Participants were permitted to keep their transcripts, but were reminded to abide by the confidentiality agreement in their signed consent forms.

Timeline. The timeline for this study was an important component of the procedures. Teachers write Individual Professional Development Plans (IPDP, Appendix A) in the fall and set goals for growth throughout the year. Although there are no follow-up deadlines explicitly stated for the IPDP, it is expected that later in the school year peer review teams come together to reflect collaboratively on whatever data each teacher has collected and submits for peer review. Although reflection is more than just looking back (Dewey, 1933), this timeframe puts teachers in a reflective stance. Therefore, this study was conducted in the second half of the school year.

The duration of the procedures outlined in each of the three sessions was eight weeks. The first week was used to collect data using the survey to determine typicality among peer

review teams (Appendix J) and send the e-mail requesting volunteer participants (Appendix I). In the second and third weeks, participants were selected and Session 1 was scheduled for Team A in the third week. Team B was not able to meet until the fourth week. The third and fourth weeks were used for Session 1; collecting and transcribing the data. The fifth week was used for Session 2. In the sixth week, data from Session 2 was transcribed and individual appointments for Session 3 were scheduled with each participant. The seventh and eighth weeks were used for Session 3 interviews.

Instrumentation

Collecting data requires the use of specific instruments (Freebody, 2003). In my research design, Sessions 2 and 3 used self-designed instruments as strategies to gather data on the interaction of reflective dialogue. Session 1 did not require the use of specific instruments because it was designed as a natural observation in which the participants were doing what they would typically do as a peer review dialoguing about their professional goals for the year. This section describes the instrumentation used in this study.

The second reflective session, designed as a focus group, created the conditions for reflective dialogue by using transcript data from Session 1 and a simple, self-designed protocol (Appendix E). Protocols as instrumentation are supported in the research (Charteris & Smardon, 2014; Doppenberg et al., 2012; Moore & Carter-Hicks, 2014; Walsh & Mann, 2015). I moderated this session and explained the protocol to participants.

The self-designed protocol (Appendix E) was written to allow each participant a turn to comment on the data. Following each participant's comments, the other members of the peer review team could make additional comments, ask questions, or reply to questions related to the

original participant's comments. This systematic process was supposed to continue until each participant had a turn.

All participants were encouraged to dialogue freely within the established norms (Appendix E) and both teams moved away from the protocol as their dialogue progressed. There was no point in which they made a decision to do so, but they did not follow the protocol systematically. As the moderator, I did not force them to use the protocol, because both teams remained engaged in reflective dialogue around the transcripts. Upon reflection after the second session with Team A, I noted that I had been so focused on the dialogue itself, I had forgotten to ask that they follow the protocol. When the same situation happened with Team B, I chose to allow their dialogue to continue without requesting they return to the exact structure of the protocol. In Session 2, both teams engaged in reflective dialogue without fully relying on the systematic protocol.

In the third reflective session, I collected data using self-designed, semi-structured interview questions to engage participants in reflective dialogue (Appendix F). A semi-structured interview requires a general focus and may include some specific questions, but does not require specific kinds of answers (Packer, 2011). The semi-structured interview provides the interviewer with the freedom to ask relevant questions as they arise and the interviewee with the opportunity to speak freely. Packer suggested a process in which the interviewer and interviewee interact in such a way that encourages clarification and elaboration and allows for an opportunity to co-create meaning through discourse.

Seidman (2006) claimed the interview was an appropriate way to find out the subjective experience of participants. Seidman also suggested the length of an interview be 90 minutes; a length that stretches beyond the common one hour unit, but does not go too long. Three of the

four interview were 90 minutes in length, while the fourth lasted 30 minutes. In my study, I used the semi-structured interview as an instrument which engaged the participants in critical reflection through dialogue, thus generating data on the interaction of reflective dialogue.

The questions for the interview in Session 3 were designed using both the conceptual framework and the review of literature presented in this study. The questions were designed to gather specific information and descriptions of experiences from the participants to answer this study's research questions. These questions are: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers?

The interview questions used in Session 3 are listed in Appendix F. Key words used in the questions are defined and those definitions were provided to the participants prior to the interview. The following words were defined as they related to this study: evidence, psychological effect, autonomy, connectedness, and competency. The interview began by asking participants to describe their initial thoughts, a strategy used by Kim and Silver (2016). Participants were asked the following questions. What are you noticing? What stands out to you as you read the transcripts? What are your initial thoughts about this reflective dialogue?

The next line of questioning was based on the concept of learning as described by Dewey (1933) and Mezirow (1991). These questions were: in what ways did you experience learning in this reflective dialogue? Were there any specific interactions within the conversation that you can point to that would evidence this learning? What about this (evidence identified by interviewee) led to your learning? What initiated or prompted this learning? How would you

describe the process of learning that you engaged in through the reflective dialogue? Can you describe the psychological effect of learning in this dialogue? How did you feel about having learned this?

To elicit potential evidence of transformational learning as described by Mezirow (1991), participants were asked to describe any changes they experienced in their perceptions or assumptions during the reflective dialogue. Follow up questions included, what prompted these changes? Were there any specific interactions within the conversation that you can point to that would evidence these changes?

The final line of questioning was designed to gather descriptions of each participant's experiences in both feeling the need for autonomy, competency, and connectedness, and feeling autonomous, competent, and connected during reflective dialogue. These questions and their underlying assumptions were based on Self-Determination Theory, as described by Deci and Ryan (1985). These theorists proposed everyone has these innate, psychological needs; this was assumed in the interview questions. For each factor of motivation (autonomy, competency, and connection), the participants were asked if they had experienced perceiving the need for it. They were then asked to identify any specific interactions within the conversation that provided evidence of that need. Then, they were asked if they felt autonomous, competent, and connected, and what dialogic interactions provided evidence of that experience. Each factor was addressed separately in the questioning in the following order: (1) questions about autonomy, (2) questions about competency, and (3) questions about connection.

Choosing to use a semi-structured format for the interview allowed me to use the questions as described above, but also engage participants in reflective dialogue about their experiences in and perceptions about the reflective dialogues from Sessions 1 and 2. I did not

limit myself to the pre-designed questions. I also constructed questions based on the critical incidents I had identified in the transcripts and responses to questions during the third session. I was careful to ask questions that generated more description and clarification of experience. I also asked questions about conflicting evidence that was either evident in the data or suggested by the participant. A semi-structured interview allowed for active variances in the interaction between interviewer and interviewee (Silverman, 2016). Providing the space to reflect openly was accomplished by using strategies that engaged the interviewee without directing a response.

This instrumentation is supported by current research on reflective dialogue. Prytula (2012) used a phenomenological approach in which participants engaged in thinking about their previous thinking in a previous phase of the research. Prytula asked participants to describe their experiences and thinking while looking at critical incidents in the data. Similarly, Charteris & Smardon (2014) and Way, Zwier, and Tracy (2015) asked teachers to review their transcribed or recorded conversations and engage in reflective dialogue with the researcher(s). Patti et al. (2012) also engaged teachers through facilitated dialogue in a series of interviews. Hendry and Oliver (2012) engaged participants in semi-structured interviews in which they critically reflected on their experiences in reflective dialogues as part of peer review. Owen (2014) used various interview questions depending on the interaction with each participant.

Way, Zwier, and Tracy (2015) provided specific examples of strategies for the interviewer, which include probing questions, member reflections, and counterfactual prompting. Examples of probing questions included: “What do you think? Why? Why not?” (Way, Zwier, & Tracy, 2015, p. 10) The authors also noted that discussion tactics related to probing questions included resisting finishing the participants’ sentences when interviewing. Member reflections represented the strategy of mirroring, in which the researcher repeats back the participant’s

words. Member reflections also represented the tactic of calling out the participant when there was a lag in thinking. The example provided was “You were about to say...?” (Way, Zwier, & Tracy, 2015, p. 10). Reassurance was the final strategy in the category of member reflections. The authors described reassurance as communication that expresses understanding of what the participant is saying. Examples of counterfactual prompting included: “Can you imagine what it might be like...? What might be the advantages/disadvantages of such a perspective?” (Way, Zwier, & Tracy, 2015, p. 10). The authors found these dialogic strategies created opportunities for transformational thinking in the interviewee, because teachers could examine their previously unchallenged assumptions and perspectives (Way, Zwier, & Tracy, 2015).

The instrumentation I chose positioned both myself and the participants as interpreters of the data. Because I chose a hermeneutic phenomenological approach, I disclosed my experiences and assumptions during the interview, when relevant to the dialogue, rather than bracketing them, to engage in the inter-subjectivity of meaning-making (Moustakas, 1994). However, it was important to use the instrumentation described above in a disciplined process to provide trustworthy data. Packer (2011) posed this question: “What would an analysis look like that explores the interaction between researcher and interviewee, as a joint production that extends beyond the event of the interview and continues in the analysis?” (p. 101). This was my challenge in designing instrumentation that set up an appropriate data analysis plan, which I describe in the following section.

Data Analysis Plan

The purpose of this study is to describe the experience of high school teachers engaged in professional reflective dialogue, with a focus on the phenomenon: dialogic interactions that support their experience of learning, autonomy, competency, and connection. This section

describes the plan I used to analyze the data collected during all three sessions. The plan includes self-designed, theory-based coding and conversational analysis.

Most methodological approaches in qualitative research require only that the researcher be careful to document, code, and report in a structured, scientific manner (Creswell, 2013). In a hermeneutic phenomenological design, there are no specific requirements for data analysis (Moustakas, 1994; van Manen, 1997). The researcher needs to think on the spot and adjust strategies based on circumstances, specific phrasing, or anything unusual or interesting that is revealed (Coles, 2003). This is an aspect of research that intimidates many hopeful researchers, because it is messy and complicated and often leads to more questions than answers (McMillan, 2012). Instead of a fixed linear process of collecting data, analyzing data, and writing the report, Moustakas (1994) described an iterative process of looking at the data and engaging the participants in meaning-making, in order to produce a narrative or an account of their experiences. Although each session in my research design was sequential, the variety of reflective dialogues they generated allowed me to explore multiple experiences of the phenomena, dialogic interactions in reflective dialogue.

I chose to use theory-driven coding (Appendix K) and conversation analysis (Appendix L) to analyze the data collected from the collection of reflective dialogues in each reflective session. Packer (2011) suggested developing an analytic framework to guide the analysis, which focuses on who the participants are, their experiences within the research, and what they say or do not say. Theory-driven coding is a deductive approach to data analysis (Packer, 2011). According to Berg (2007), “Coding requires a careful, detailed, systematic examination and interpretation of a particular body of material in an effort to identify patterns, themes, biases, and meanings” (p. 303-304). Both Olson (2011) and Brinkmann (2013) cautioned the researcher

must avoid confirmation bias, which happens when the researcher looks for data to confirm theories while ignoring conflicting data. I discuss my plan to avoid confirmation bias in an upcoming section of this chapter.

I designed a set of theory-driven codes to use as an analytic framework (Appendix K). The coding is based on the theories of Dewey (1933), Mezirow (1991), and Deci and Ryan (1985), with examples of evidence found in current research. I engaged in a systematic process of identifying key codes within my conceptual framework and examples of possible indicators described within the research literature reviewed in Chapter 2. I included the examples of possible indicators to facilitate the identification of similar indicators which could be found in the data I collected.

The self-designed, theory-driven codes were organized into a table that identified the code, theoretical element, and example indicators from the literature (Appendix K). The grouping of the codes were based on the outline of my conceptual framework described in detail in Chapter 2. Codes related to Dewey's (1933) theory of learning, Mezirow's (1991) theory of transformational learning, and Deci and Ryan's (1985) Self-Determination Theory. By aligning the codes to my conceptual framework, they were also aligned to the interview questions used in Session 3. This provided structure to the research process overall.

The code *Systematic* was used to identify systematic reflection (Dewey, 1933) could be indicated by the use of a protocol (Charteris & Smardon, 2014; Doppenberg et al., 2012; Moore & Carter-Hicks, 2014; Walsh & Mann, 2015); evaluations of data (Walsh & Mann, 2015); and inviting feedback (Tam, 2015). *Problem* was used to indicate instances of problem-posing (Dewey, 1933; Mezirow, 1991). Examples of problem-posing were found when data and evidence are described as problems (Walsh & Mann, 2015). Asking for help while stating a

problem (Trust, 2012) and elaborating on and clarifying problems (Tam, 2015) could also indicated problem-posing. Dewey (1933) described a process of hypothesis testing, which Mezirow (1991) called instrumental learning. The code *Testing* was used and example indicators included instances of trial and error (Hilden & Tikkamäki, 2013) and a focus on external products and practices (Brendefur et al., 2014; De Neve et al., 2015).

The codes continue with *Discomfort*, an important phase of learning described by both Dewey (1933) and Mezirow (1991). Discomfort was defined as a sense of uncertainty by Dewey (1991) and, more specifically, as fear, shame, or guilt by Mezirow (1991). In the research literature, indicators included silence (Zimmermann & Morgan, 2015); not wanting to offend others in the interaction (Hallam et al., 2015); and articulated anxiety (Bell & Thompson, 2016). *Language* was the code I used to note specific instances where words or phrases were the focus of the meaning-making between participants (Dewey, 1933; Mezirow, 1991). A process of rewording or trying to find the right word for a particular concept (Ramos-Rodríguez, Martínez, & da Ponte, 2016) or the use of consistent terminology (Kutsyuruba et al., 2015) could indicate evidence of language in the process of learning. Mezirow (2000) also described consensus as important element of learning. *Consensus* was used when participants seemed to be using their best collective judgment, as evidenced in their process to reach a consensus.

Two codes were used to identify the results of learning. *Certainty* was used to identify what Dewey (1933) and Mezirow (1991) described as a certainty of a person's beliefs and a sense of balance that is achieved after the discomfort or uncertainty in learning is resolved. In the literature, Harper and Nicolson (2013) described this as self-efficacy and Cochran-Smith (2012) called it resiliency. An inner sense of vocation (Gu & Day, 2013) and self-actualization through understanding of one's personal value system (Biktagirova & Valeeva, 2014) were

examples of certainty. *New Meanings* was set as the code to indicate the most important element of transformational learning: the intentional consideration of new meanings (Mezirow, 1991). Examples of indicators noted in the literature included questions about professional practices and perspectives (Danielson, 2015; Devlin-Scherer & Sardone, 2013); changes in beliefs and attitudes (Bredefur et al., 2013; Harper & Nicolson, 2013); challenged perspectives (Hepple, 2012); and introspection (Evans, 2012).

Critical reflection, as described by Mezirow (1991), was coded as three different codes: *CR-Content*, *CR-Process*, and *CR-Premise*. When critical reflection is focused on the content of the reflection itself, it could be evidenced by discussing feelings (Bell & Thompson, 2015) or examining the setting of or the situation surrounding the reflection (Farrell & Jacobs, 2016). In the literature, reflecting on the process of reflection is indicated by metacognition (Postholm, 2012; Prytula, 2015) and mutual learning about reflection (Tam, 2015). Finally, critical reflection of the premise of the reflection was suggested in the literature as examining professional purpose (Patti et al., 2012). For all three of these types of critical reflection, Mezirow (1991) cautioned there could be instances in which the mind blocks out memories or ideas, but are made evident through critical reflection. Charteris and Smardon (2013) described this as surfacing the invisible. I used the code *Memory* to note any dialogic interaction that indicated this was happening.

The final three codes align with Deci and Ryan's (1985) Self-Determination theory. *Autonomy* was used to note both the need for autonomy or evidence of acting autonomously. Autonomy is being in control of your own behavior (Deci & Ryan, 1985). In the literature, Bell and Thompson (2016) noted team-supported individual self-direction was an example of

autonomy. Providing space for each other, the freedom to speak openly and authentically, also indicates autonomy (Charteris & Smardon, 2014; Patti et al., 2012).

Connection is described as being part of a social context, belonging to a group, and being attached to other people (Deci & Ryan, 1985). *Connected* was used to indicate interactions that reflected this in the dialogues. The review of literature provided many examples of indicators for connection. Trust et al. (2016) described dialogue that provided professional refuge to teachers, an opportunity to safely discuss difficult professional issues or safely express negative or challenging emotions resulting from professional experiences. Connection is also indicated by an invitation to engage (Brabham et al., 2016); establishing or reassuring confidentiality (Finefter-Rosenbluh, 2016); being accountable to each other (Darling-Hammond, 2013; Pullin, 2013); and understanding each other's perspectives (Moore & Carter-Hicks, 2014). Consideration of the group's perspective (Akoyl & Garrison, 2014) and moving beyond isolation (Bell & Cooper, 2013) were also indicators notes in the literature.

Mastery was the code used to indicate the need for competence or articulated competence (Deci & Ryan, 1985), as well as perfected performance (Mezirow, 1991) in the dialogues. Fullan et al. (2015) and Trust (2012) described this as an expression of professional expertise. Kyndt et al. (2016) and Tucker (2014) described it as a love for learning that could be seen in professional dialogue.

These codes were used to analyze the transcript data from all three sessions of my study, which totaled eight conversations. I used manual, color-coding in the data analysis. Each code was associated with a different colored highlighter purchased for this purpose. As I read through the transcripts, I highlighted dialogic interactions according to the color associated with the code that aligned to both the theoretical description and examples in the literature. For example, I

used a purple highlighter to mark dialogic interactions that reflected problem-posing as described by Dewey (1933) and Mezirow (1991). In the margin, I marked *Problem* in purple and added comments or questions to help process the data.

My second form of data analysis was conversation analysis. Freebody (2003) claimed conversation analysis is an appropriate choice for studying interactional phenomenon. Although conversation analysis is both a method and system of analysis (van Kruiningen, 2013), I used it only to analyze the transcript data that emerged as critical incidents through the coding. Van Kruiningen claimed existing studies on the professional development of teachers have not reached a level of fine-grained analysis which can be achieved through conversation analysis. Using conversation analysis in my research allowed me to look carefully at the interaction between teachers engaged in reflective dialogue during critical incidents, specifically the language *for* reflection and language *of* reflection (Mann & Walsh, 2013).

Conversation analysis was developed by Sacks (1984) as an academic discipline to study language use. Packer (2011) described conversation analysis as an approach to the study of practical activity in which the researcher is not as much concerned by what people say as by what they *do* by saying. “Conversation analysis is an approach that views what people say in interaction together as first and foremost a kind of *action*” (Packer, 2011, p. 251). Conversation analysis contrasts with discourse analysis and transcript analysis, which seek to show representations of a deeper meaning from the interaction (Packer, 2011). Conversation analysis usually limits the analysis to the actions and sequences of actions that can be observed and to what the participants indicate within the interaction (van Kruiningen, 2013).

Transcription using the conventions outlined in Appendix L, based on guidelines developed by Sacks (1984), allowed for analysis of actions within the conversation, which is

considered the language for reflection (Mann & Walsh, 2013). My research questions focused on teachers' experience with language in dialogic interactions during reflective dialogue and evidence of learning and support for motivation within the interaction, therefore I used conversation analysis to analyze that action. I noted where there was overlapping or simultaneous talk with brackets ([...]). The transcriber also inserted notes when she was unable to distinguish voices that were overlapping. I used an equal sign (=) to show where latching took place; where the second speaker followed the first speaker with no discernible pause between them. Lengths of pauses before, after, or during critical incidents within the data were measured and recorded in seconds. I used a dash (-) to indicate a cutoff or self-interruption. These transcription conventions allowed me to make a detailed analysis of the interactions and note potential moments where participants might be experiencing something significant.

There are several aspects of conversational structure that can be analyzed using conversation analysis: conversational pairs, turn-taking, and sequences (Kim & Silver, 2016). An analysis of conversational pairs assumes each utterance displays a degree of understanding of the previous utterance (Packer, 2011). By looking at what one person says in response to another person, conversational pairs can be formed which provide empirical evidence of participants' understanding. I analyzed the transcript data for conversational pairs and took note of interactions that supported understanding or indicated misunderstanding. If the point of understanding or misunderstanding was relevant to the evidence of learning, autonomy, connection, or mastery, I presented it to the participants individually in Session 3. Printing the transcripts so each speaker's lines were in a different color helped to identify these pairs. The participants were also given color-coded copies so they could see the difference in lines spoken by each of them.

Turn-taking investigates the conversational moves among participants. Sequences within the conversation are also important for analysis. Packer explains this can be analyzed by looking at how conversational pairs are linked or interrupted. Breakdowns in sequences can be critical points within the data. Kim and Silver (2016) explained repair strategies are an important aspect of sequential organization because they provide insight into how breakdowns are repaired. Each of the utterances in a conversation are analyzed for what they do and what they may represent (Packer, 2011). In my analysis of data, I looked for evidence of learning and factors that support motivation within the conversation as an interaction.

Conversation analysis not only looks for evidence within the conversation, but also that the participants view the evidence in the same way (Packer, 2011). This means my interpretation, as the researcher, is incomplete, unless I can co-create and corroborate the meaning of the evidence with the participant. Packer noted it is impossible for the researcher or the participant to leave behind any presuppositions when involved at this level. Instead, it becomes necessary to acknowledge and explore those presuppositions in the process. This way of thinking and reflecting mirrors Mezirow's (1991) description of critical reflection. It is appropriate for my research to include a data analysis plan that requires the kind of critical reflection being studied, which includes a reflective investigation alongside each individual participant.

Zimmermann and Morgan (2015) claimed an analysis of silence is also important to an interactional study, because it provides the researcher with a better understanding of active listening and a potential window into the experience of uncertainty and doubt by the participant. Silence may be simple or complex and must be analyzed and interpreted carefully (Olson, 2011). Zimmermann and Morgan (2015) noted "inhabiting silence can become an experience of solitude

that preserves one's autonomy" (p. 406). Within the context of collaborative, reflective conversation, it is critical to note more than just the common language and shared vocabulary, but also the absence of spoken language. In my research design, moments of silence were also coded and analyzed. I asked participants to reflect on moments of silence within the critical incidents in the dialogue and analyze their experience and perceptions during the acts of silence. For example, I asked questions such as, what were you thinking when you paused in that sentence? How did you feel when your peer was quiet so long?

Both conversation analysis and theory-driven coding depend, in major part, on the language *of* the interaction of reflective dialogue (Mann & Walsh, 2013). Packer (2011) explained language is not something that assigns meaning from the outside, but rather language comes from the inside; making thinking, feeling, and reasoning visible to the outside world. Most researchers view language as a combination of words which label thoughts and concepts and coding as a process for assigning meaning to these labels (Packer, 2011). This detached and neutral research stance often leaves the participants feeling like objects, rather than humans. Packer challenged researchers to engage in the inter-subjectivity that comes from creating space for the participant to truly be heard and engaging with the participants in the process of constructing meaning together. I used both conversation analysis and theory-driven coding to analyze the data in this way.

Inter-subjective meaning-making means participants in this research were also engaged in data analysis (Packer, 2011). In Session 3, during which I interviewed individual participants, I invited the participants themselves to analyze their perceptions about learning and motivation to gain a deeper perspective of their experiences. Silverman (2016) stated, "Interview participants are as much practitioners of experiential information construction as they are repositories or

excavators of experiential knowledge” (p. 69). As I engaged in reflective dialogue with each participant during an interview, I invited the participant to analyze the data with me. I used both the self-designed theory-driven codes (Appendix K) and conversation analysis (Appendix L) with the transcripts from Sessions 1 and 2 to identify potential areas for further reflection by the participants during the interview. By locating these possible critical incidents first, they could be compared to the data analysis that each participant provided. Participants were provided with paper and digital copies of transcripts from the first and second sessions prior to participating in Session 3. Brinkmann (2013) noted agreement between participant and researcher helps to validate the data analysis. Further discussion of how I account for a trustworthy research design is discussed in the next section.

Trustworthiness

Collecting data that is trustworthy can be a challenge for qualitative researchers. Producing trustworthy data requires criteria for participation, a set of targeted questions, multiple sources of data, a systematic process for data analysis, and member checking. In quantitative research, the researcher must explore a problem and has a wide variety of methods to do this, usually choosing more than one and building layers upon layers of research before coming to a conclusion (McMillan, 2012). According to McMillan, criteria for credibility includes prolonged engagement, member checking, triangulation, negative case analysis, peer debriefing, external audit, researcher reflection, and thick description. Wolcott (1994) also identified a related list of practical ways in which a researcher could provide a sense of authenticity and credibility in her work. This list includes a careful balance between listening and talking (as the researcher), making accurate observations, including primary data, being thorough and candid, and seeking

out feedback (Wolcott, 1994). As a qualitative researcher, I had a duty to my study's participants and my intended readers to provide ample evidence that the research is trustworthy.

Internal Validity

Maxwell (1992) claimed validity is not evidenced in the procedures, approaches, or instruments used in research, but rather in the relationship of the research to what the procedures, approaches, instruments describe. In order for my research to be valid, my research must provide a clear description of the phenomenon of reflective dialogue. Maxwell explained validity does not depend on some kind of absolute truth as an external point of reference, but on a consistent way of assessing the accounts. Packer (2011) also emphasized the responsibility of the researcher to carefully attend to the accounts provided by the participants. Clearly represented accounts of participants' experiences and perceptions are inherently valid (Maxwell, 2012). In order to achieve this, I was careful to listen to and interpret the experiences of my participants honestly. I let the participants speak for themselves first and then gave them the opportunity to check my interpretation of their words.

External Validity

External validity is described as generalizability (Maxwell, 1992). Brinkmann (2013) stated, "qualitative studies cannot, like quantitative studies, demonstrate generalizability statistically (by invoking a significance level, for example), but must employ some form of analytic generalization" (p. 144). If a theoretical understanding of the subject matter can be presented, it can be recognized as a significant description of the phenomenon under investigation. My conceptual framework, based on theorists Dewey (1933) and Mezirow (1991), provide a theoretical understanding of reflective dialogue.

Brinkmann (2013) argued phenomenology and conversation analysis can sometimes be generalized because the phenomenon or features of conversation are viewed as typical. This is the argument posed by van Kruiningen (2013): “It can be expected that the issues addressed in this analysis do not pertain exclusively to the participants in this study, but also for conversationalists in similar settings” (p. 119). In my research, the reflective dialogue experienced in all three reflective sessions was typical to the experiences of other high school teachers who engage in reflective practices. Because typicality is difficult to define, I conducted a survey of secondary teachers who engage in peer review teams, in order to build a description of a typical peer review team (Appendix J). The description of a typical peer review team was comprised of: (1) number of members, (2) years together, (3) years of experience as a teacher, and (4) level of understanding of the practice of peer review. This definition was used as part of the purposeful sampling and described in Chapter 4 in order to provide evidence to the reader of the inclusion of a typical peer review team sample. It is critical I provide a rich description of the context, culture, and process in which the research data is gathered (Major & Savin-Baden, 2010). This will allow the reader to determine for themselves if the phenomenon and the findings presented in the research would be similar or typical in similar situations.

Dependability

Dependability in qualitative research is comparable to reliability in quantitative research, which requires verification through replication (Gerring, 2001). The research I conducted is clearly laid out so that other researchers can replicate it. Gerring cautioned if the research is conducted in unrepeatable conditions, there will be doubt about the study’s dependability. However, if the cases or circumstances are available and the research is described thoroughly, this is an acknowledgement of a collaborative view of the study (Gerring, 2001). In other words,

dependability is the researcher's effort to establish trust related to the study itself, within the process and the findings (Major & Savin-Baden, 2010).

In order for my research findings to be dependable, I was transparent about my process and my personal involvement, including my decisions regarding qualitative inquiry (Creswell, 2013). Subjectivity exists in both the researcher and participants, but this need not be a problem if the researcher makes any subjectivity visible during the research (Silverman, 2016). This allows the completed research process to be read and reviewed as authentic, but it also allowed participants to be authentically engaged with me during the research process.

McMillan (2012) emphasized the importance of researcher reflection, called reflexivity. Creswell proposed a reflexive approach in which the researcher admits involvement, partiality, and questions, most often through reflective journaling. Packer (2011) proposed it is impossible to transcend subjectivity and, therefore, it is the responsibility of the researcher to examine her involvement, interpretation, and influence on each part of the research through this process of reflexivity. Packer cautioned that reflexivity is not personal reflection. Instead, reflexivity is a collective examination of how the researcher's social origins, positions in the academic field, and intellectual bias might limit the knowledge produced by the researcher (Packer, 2011). I used the practice of reflexivity in my study to ensure dependability of my research design and findings.

Confirmability

Confirmability is achieved when the researcher is able to demonstrate a neutral position in the data analysis and interpretation by controlling against bias (Major & Savin-Baden, 2010). It is impossible for a researcher to take a completely neutral stance (Packer, 2011). Data analysis and interpretation based on a conceptual framework assists researchers in confirmability by providing an analytic framework, as well (Creswell, 2013). However, if researchers rely too

heavily on the theories within a conceptual framework, they may get locked into a predetermined idea of what they think the data should be, resulting in confirmation bias (Major & Savin-Baden, 2010). Confirmability can be achieved through corroborated evidence, in which someone other than the researcher is also involved in the analysis.

In order to achieve confirmability in my study, I validated my findings with the participants. In Session 3, each participant was invited to analyze the data and give personal accounts of their experience and perceptions of learning and motivation in the reflective dialogue. Van Kruiningen (2013) claimed reactions from the participant during this process of co-analysis can validate a researcher's findings. It was important not to ask the participants to confirm my analysis (Brinkmann, 2013). Instead, I confirmed or did not confirm my analysis by comparing it with that of the participants' analyses.

In addition to reflexivity and member checking, Lincoln and Guba (1985) suggested conducting a confirmability audit. This is an external audit in which an outside researcher challenges the findings, interpretations, and conclusions to verify that they are supported by the data (Lincoln & Guba, 1985). Although this approach could add some value to my research, it would most likely present a drawback in that my research includes co-creation interactions between at least two people which may be difficult to replicate (Packer, 2011). During the interactional dialogue of reflection, during all three reflective sessions, there was no absolute truth being exposed, but rather a collaborative meaning-making that leads to mutual understanding. Therefore, it was more reliable to confirm findings with the participants themselves, rather than an outside researcher.

Ethical Procedures

Ethical considerations include the recruitment of participants, participant consent, interactions with participants, maintaining confidentiality, and providing honest accounts (Creswell, 2013). The Institutional Review Board of Concordia University, Portland, required ethical procedures within this study. Additionally, I drew upon the Code of Professional Conduct and Ethics established by the [REDACTED] Board of Educational Examiners (2014) which states an educator is in violation of Standard VI if she conducts professional business in such a way that exposes colleagues to embarrassment or disparagement (25.3 (6) d). She is also in violation when intentionally disclosing confidential information (25.3 (6) h). As an educator in the state of [REDACTED], I am subject to this code of conduct during all professional business, including during my research.

Protecting Anonymity

In qualitative research, protecting the identity of participants is required (Olson, 2011). I used pseudonyms for each of the participants in the study in order to maintain their anonymity. Participants chose their own pseudonym. In addition to providing for anonymity, I report the data and my findings in a way that does not cause embarrassment or disparagement to the participants. Participants were provided with drafts of my findings and permitted to request changes. None made such a request.

Participant Safety

Clear expectations or norms for group members were established to ensure participant safety. Finefter-Rosenbluh (2016) researched the ethical dilemmas related to reflective practice among educators and found vague procedural boundaries led to negative ethical issues. Following the suggestions of Charteris and Smardon (2014), peer review teams were advised to avoid making judgements, allow each other the space to articulate thinking, and take risks in

learning. Participants in my study were provided with procedural boundaries and group norms as part of the consent form (Appendix C), the instructions for Session 1 (Appendix D), and the instructions for Session 2 (Appendix E).

Avoiding Exploitation

Creswell (2013) cautioned a researcher must be aware of the potential for exploiting the population being studied. For this reason, the researcher must be sensitive to any power imbalances that exist (Creswell, 2013). My position as a teacher leader afforded me some authority among my colleagues in my school, which could have led to a power imbalance. By selecting participants from outside of my own school who did not view me as an authority figure, I minimized the potential for ethical issues related to any power imbalance. Olson (2011) claimed exploitation also happens when the participants gain nothing in exchange for their participation or are, in some way, harmed. I ensured my participants were not exploited by informing them of clear professional benefits they could gain by participating in my study (Appendix C).

Additionally, Way, Zwier, and Tracy (2015) cautioned researchers must acknowledge their impact on participants and be sure to explain what may happened because of their involvement in potential transformative learning experiences. Because my research was set in conditions which had the potential to generate transformational learning, it could cause participants to experience a disorienting dilemma (Mezirow, 1991) or a sense of discomfort or unbalance (Dewey, 1933). Mezirow raised concern for this ethical dilemma when he first presented his theory. Although the outcomes of transformational learning are viewed as positive, even inherently good, Taylor and Cranton (2013) discussed the importance of acknowledging that the process of transformational learning can involve both emotional and cognitive trauma,

such as pain, discontent, guilt, and shame. The possibility of this impact was disclosed to participants prior to their consent for participation (Taylor & Laros, 2014). I described these potential risks in the consent form which was provided to participants (Appendix C).

Reflexivity

Reflexivity is also important for maintaining ethical standards in research (Packer, 2011). Reflexivity is a reflective process the researcher undertakes to acknowledge how assumptions and personal experiences may affect the analysis (Friesen et al., 2012). Although reflexivity is most often considered an analytic tool to help researchers address issues related to personal perspectives in the analytic process, it can also be used to examine ethical issues (Olson, 2011). If conducted as a meticulous process throughout the research, reflexivity can be a tool for accountability (Packer, 2011). I have been committed to practicing reflexivity as a method for maintaining ethical standards throughout my research.

Summary

This chapter described the hermeneutic phenomenological approach I chose to study the interaction of reflective dialogue among high school teachers. As a qualitative approach to research, phenomenology allowed me to generate a description of the teachers' experience and their perceptions of the interaction. It allowed me to understand what parts of the interaction of reflective dialogue evidenced learning (Dewey, 1933; Mezirow, 1991) and factors of autonomous motivation (Ryan & Deci, 2016). A hermeneutic phenomenological approach allowed me to participate in the meaning-making process with my participants (Moustakas, 1994). My role as the researcher was both as a nonparticipant observer and as a co-constructor of meaning along with the participants.

The phenomenon was accessed through the reflective dialogues of high school teachers as they engaged in the practice of peer review. Participants in my study were purposefully selected. Although peer review is required of all public school teachers in the state where this study was conducted, participants in my study were volunteers. Volunteers were recruited and participants who were willing to agree to the parameters of my study as outlined in the consent form (Appendix C) were selected. I selected participants who reflected a typical peer review team, as determined by survey data (Appendix J).

I designed three sequential reflective sessions as settings for reoccurring reflective dialogues among high school teachers. Each of these sessions used purposefully designed procedures to generate interactional data that was collected and analyzed. The three sessions spanned eight weeks. The sessions were conducted as follows:

- Reflective Session 1: This was conducted as a naturalistic observation. Participating teachers met with their peer review team during contract hours to reflect on the progress of their Individual Professional Development Plans, as a common practice. Session 1 relied on the instructions provided by the school district for the peer review process (Appendix D). Participating teachers met in the location typically used by their peer review team for meetings: a member's classroom and an office. I was present as a nonparticipant observer and collected additional data in the form of reflective field notes. The reflective dialogue from Session 1 was recorded, transcribed, and analyzed using self-designed, theory-based coding, and conversation analysis.
- Reflective Session 2: This was conducted as a focus group. Participating teachers met with their peer review team during contract hours to reflect on the transcript from Session 1. Typed copies of the transcript were provided to each member. I moderated this

session by providing instructions and a self-designed protocol to reflect on the reflective dialogue from Session 1 (Appendix E). Session 2 took approximately 30 minutes.

Participating teachers met in the location typically used by their peer review team for meetings; a member's classroom and an office. This reflective dialogue was recorded, transcribed, and analyzed using self-designed, theory-based coding, and conversation analysis.

- Reflective Session 3: Participating teachers met individually with me to reflect on transcripts from Sessions 1 and 2. Typed copies of the transcripts were provided to each participant. Using the transcript data from Sessions 1 and 2, participants and I engaged in reflective dialogue, during which I solicited their own analysis of the data, as well as provided an opportunity to check my ongoing analysis. Participants also provided answers to my questions in a semi-structured interview regarding the transcript data and their perceptions of the reflective dialogue (Appendix F). These reflective dialogues were recorded, transcribed, and analyzed using self-designed, theory-based coding, and conversation analysis. Each interview took no longer than 90 minutes to complete and was conducted in the interviewee's office or classroom. Session 3 took place outside of the teachers' contracted hours.

Elements within my methodology are well supported by current research. Gelfuso and Dennis (2014) used two phases, or sessions, in which they recorded reflective conversations. Taking this method a step farther, Charteris & Smardon (2014), Way, Zwier, and Tracy (2015), and Prytula (2012) asked teachers to review their transcribed or recorded conversations and engage in reflective dialogue with the researcher(s). Patti et al. (2012) also engaged teachers through facilitated dialogue in a series of interviews. Hendry and Oliver (2012) engaged

participants in semi-structured interviews in which they critically reflected on their experiences in peer review. Kim and Silver (2016) used conversational analysis as a method to analyze reflective dialogue among teachers in post-observation conversations.

My research design and methodology also aligns well with my conceptual framework. Dewey (1933) believed true reflection happens through interaction with others; each reflective session I designed required this kind of interaction. In Session 2 and Session 3 of my research, participants were provided with transcripts to stimulate recall, which acted as the problem (Dewey, 1933) or disorienting dilemma (Mezirow, 1991) that triggered reflective learning. Dewey (1944) explained the act of expressing oneself to another person provides opportunities for deeper examination of experience and new possibilities for meaning. For Dewey (1944), the language used in collaborative reflection became both the means for exploring an issue and material to explore, which is how it was used in my research, as well. Additionally, Deci and Ryan (1985) argued people are motivated when their needs to be connected, autonomous, and competent are fulfilled. In my research design, I provided space for connection, allowing participants to be autonomous, and facilitating participants' competency in reflective dialogue as they progressed through each session.

In addition to research design and methodology, I have provided a description of how I established a trustworthy study. I provided descriptions and details of the study, as well as used reflexivity and transparency. Additionally, I used approaches and methods that included the participants as co-creators of meaning, especially in data analysis. These actions support both the internal and external validity, dependability, and confirmability of my study. Finally, I planned for an ethical study by designing procedures which protected my participants and upheld strict ethical standards.

The research design I have outlined in this chapter is supported by current research and aligned with my conceptual framework. I purposefully designed a study which engaged the participants and me in reflective dialogue within the contexts described by Dewey (1933) to support critical reflection, by Mezirow (1991) to facilitate transformational learning, and by Deci and Ryan (1985) to allow for satisfaction of the connection, autonomy, and competency needs. Most importantly, this study generated the data necessary to answer my research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers? The findings from this study are presented in the following chapter.

Chapter 4: Data Analysis and Results

Introduction

The purpose of this study was to provide descriptions of the high school teachers' experiences in reflective dialogue and examples of the dialogic interactions that support learning and motivation. A hermeneutic phenomenological research design allowed for multiple reflective dialogues between high school teachers to be recorded, transcribed, and analyzed. How high school teachers' experience the interactions in reflective dialogue required a dialogic approach which investigated those interactions (Mann & Walsh, 2013; van Kruinigen, 2012). Understanding the interaction of reflective dialogue necessitated research into the discourse processes that teachers use. It was also important to invite teachers to analyze their interactions and describe their experiences.

This chapter provides an account of how the data were analyzed and the results of the study. The first section describes the setting of the study, including the physical, social, and temporal settings. This is followed by a detailed account of the total population targeted for the study and the demographics of the participants. The next section provides a description of the sample. The chapter continues with a section explaining the data that was collected and a section outlining the research methodology. Additionally, a section is devoted to providing evidence of a trustworthy study. Finally, the results of the research are organized and described according to the three research questions.

1. How do high school teachers experience dialogic interactions within reflective dialogue?
2. What evidence of learning is present in the dialogic interaction of reflective dialogue among high school teachers?

3. How is self-directed motivation supported in the dialogic interaction of reflective dialogue among high school teachers?

Description of the Sample

This section describes the setting and the participants. Understanding how the sample was selected and studied ensures that the results can be generalized back to the sample population. The population sample for this study included four high school teachers in a public school district.

Setting

In this section, I describe the social, physical, and temporal settings for the study. Creswell (2013) proposed that the study of a phenomenon, such as reflective dialogue, must be strategically accessed. Access to high school teachers was provided by a large, Midwestern, urban, public school district, the [Location Information Redacted]. The school district also provided access to the physical space and time needed to conduct the research.

Social setting. To access teachers' reflective dialogue, this study used the context of an existing practice: teacher peer review. The state in which this study was conducted requires all public school teachers to participate in an annual peer review. The teacher peer review is described as a collaborative, open examination of teaching practices by peers and intended for self-improvement and improved teaching effectiveness. This existing practice includes opportunities for reflective dialogue among teachers. Because the practice of peer review operationalizes reflection, it provided the social setting needed to access and study teachers engaged in reflective dialogue.

Physical setting. This study required a physical setting for two peer review teams, each one composed of two high school teachers from different high school programs within the same

district. The teams were identified as Team A and Team B. The physical setting for Team A was in a non-traditional, real world project-based high school program with a staff of 12 teachers. The physical space used by students and teachers included a private office and a common working space, located in a downtown commercial building. This location allowed teachers and students to integrate into the community through common professional and social activities. For all three sessions of data collection, Team A met, with permission, in the private office used by the program.

The study location for Team B was in a traditional high school with a staff of approximately 90 certified teachers. The school has a large, multi-facility campus within city limits. The location for Session 1 and 2 was the classroom of one team member. The locations for each Session 3 with Team B members was in each individual's classroom. The physical settings for the data collection for both teams were locations to which each team was accustomed. This provided a sense of comfortability for participants during the sessions.

Temporal setting. The temporal setting of this study is also important for consideration. Teachers' reflective dialogue was first accessed through the practice of peer review. As part of this practice, teachers write Individual Professional Development Plans (Appendix A) in the fall and set goals for growth throughout the year. It is not until later in the school year that peer review teams are able to come together to reflect collaboratively on the data each teacher collects and submits for peer review. Although reflection is more than just looking back (Dewey, 1933), this timeframe puts teachers in a reflective stance; a positing in time that encourages analysis of the past because they are able to look back at their work from the concluding school year. Therefore, this study was conducted in the second half of the school year. The social, physical, and temporal settings in this study were chosen and designed purposefully in order to access and

collect multiple instances of reflective dialogues among high school teachers, protect their anonymity, and ensure a representative experience of the phenomenon.

Participants

Four high school teachers volunteered to be participants for this study. The recruitment procedures approved by the Institutional Review Board were followed carefully and diligently. These procedures included contacting each of the 228 potential participants twice by e-mail. Next, recommendations for participants was solicited from school leaders. This select group of recommended potential participants were contacted in a third and fourth round of requests. Finally, individual recruiting was done for recommended potential participants.

This study was limited to the four who participated, because they were the only four who agreed to participate. The first team, composed of two teachers, volunteered in the first round of e-mail recruitment. The second team was created with two willing participants after contacting each individually to solicit their participation. One participant was recommended by a school leader and agreed to participate if she could find a willing peer to partner with. The second participant agreed to participate after being asked. Following the guidelines suggested by Giorgi (2008) that a phenomenological approach include at least three participants, I determined these four volunteer participants could provide enough qualitative data for a rigorous and thorough description of the phenomenon of dialogic interaction (Brinkmann, 2013).

Demographics. This section describes the demographics and typicality of the sample, as well as a description of the participants in each team. The total population of potential participants was 228 high school teachers. The sample was four of those teacher. Table 1 describes the demographics of the sample and the total population. Although the demographics

for the four participants in the sample did not match those of the total population, the sample was diverse. The sample included both genders and multiple races.

Table 1

Demographics of population and sample

Demographic	Population (N)	% of Population	Sample (n)	% of Sample
Ethnicity/Race				
Black	5	2.1	1	25
White	218	95.6	3	75
Latino/Hispanic	3	1.3	0	0
Other	2	.8	0	0
Gender				
Male	107	46.9	1	25
Female	121	53.0	3	75

Note: $N = 228$

Typicality. This study included data to allow the reader to determine for themselves if the phenomenon and the findings presented in the research would be similar or typical in similar situations. To describe a typical peer review team for the study, I created a brief and anonymous survey (Appendix J). This survey was designed to poll high school teachers who were required to participate in peer review. The characteristics and conditions of typicality for a peer review team measured on the survey included: (a) size, (b) years together, (c) meeting locations, (d) level of understanding of the peer review process, (e) frequency of collegial reflective dialogues, and (f) years of teaching experience. The survey was created in and collected through Qualtrics, an online service. After creating the survey, a URL generated from Qualtrics was distributed via email to teachers in 12 local high schools, including eight outside of the participating district. There were 74 completed surveys after one week. Of the completed surveys, 57 responded “yes” to being a certified high school teacher. The results were filtered to include only those 57

responses (Table 2). The data were analyzed by finding the mode for each data set in the survey to determine typicality (Adams & Lawrence, 2014).

According to the results of the survey (Table 2), peer review teams vary in their size, but are more likely to have two or three members. Results showed a majority of high school teachers reported that their peer review team was also an established Professional Learning Community (PLC). The survey results showed a range of years together as high school a peer review team; most were in their first or second year or had been together more than four years. Although 9% of respondents admitted they did not meet as a peer review team, the results showed regular meetings were common. A significant majority of respondents reported meeting together at school during contracted hours; few responses indicated other times and locations. The survey also gathered information on how well high school teachers understand the practice of peer review as it has been described by their district. In regard to the statement “I understand the practice of peer review as it has been described by my district,” 57% somewhat agreed, agreed, or strongly agreed. The remaining responses were equally distributed for each level of disagreement. High school teachers who responded to the survey also reported their years as certified teachers. Approximately half the certified high school teachers who completed the survey had been teaching between 10 and 20 years.

Table 2

Typical Peer Review Statistics

Survey question	%	Count
Including yourself, how many members are in your 2016-2017 peer review team?		
2	22.81	13
3*	43.86	25
4	19.30	11
5	14.04	8
Which peer group best describes your peer review team for 2016-2017?		
PLC*	66.67	38
Content Team	17.54	10
Book Study Group	0.00	0
PLN	8.77	5
Other	7.02	4
How many years have the majority of your peer review team members been together as a peer review team?		
1 (first year together)	28.07	16
2*	33.33	19
3	14.04	8
4	1.75	1
5	22.81	13
How often does your peer review team meet?		
Once per year	10.53	6
2-4 times per year	14.04	8
More than 5 times per year*	59.65	34
We do not meet	15.79	9
What is the typical setting of your peer review team meeting? (n = 55)		
At school during contracted hours*	92.73	51
At school outside of contracted hours	1.82	1
Other locations outside of contracted hours	0.00	0
At other district locations during contracted hours	5.45	3

Table 2 Continued

Survey question	%	Count
To what extent do you agree or disagree with this statement? "I understand the practice of peer review as it has been described by my district."		
Strongly Agree	7.02	4
Agree	19.30	11
Somewhat Agree*	31.58	18
Somewhat Disagree	14.04	8
Disagree	14.04	8
Strongly Disagree	14.04	8
How many years have you been a certified teacher?		
0-4	10.53	6
5-9	14.04	8
10-14*	24.56	14
15-19	22.81	13
20-24	12.28	7
25-29	5.26	3
30-34	3.51	2
35-39	7.02	4
40 or more	0.00	0

Note: $N = 57$, *indicates most frequent response.

Using the survey results, a general description of a typical peer review team could be stated. A typical peer review team: (a) is made up of two to three teachers who have an average of 15 years of teaching experience; (b) is an established team that meets often during contracted time in the school; (c) is most likely a PLC that has been together for one or two years; (d) has team members who have a basic understanding of the peer review process, but may include team members who do not understand the process.

Team A. Team A included Jean Luc and Esther, who chose their own pseudonyms for this study. Jean Luc was a white male and Esther was a white female. Both teachers had 15 years of experience teaching in multiple school settings. They had worked closely together throughout the year and shared a common working space some of the time. This was their first year together as a peer review team. It was also Esther's first year at the school and she

indicated that reflecting on her year was very important to her. Jean Luc had been part of the school since it first started and claimed to feel very responsible for the school's success, as well as the success of his peers. He indicated he was always reflecting on what was working, what was not, and how to do better. Jean Luc and Esther had written and submitted their Individual Professional Development Plans (IPDP) in the fall as required, but did not have copies of the document in the session. Their dialogue in Session 1 began with a description of their individual goals expressed in their IPDP.

Concerning background experience related to this study, Esther had some experience with studying dialogue. In her role as a teacher in a project-based school, she had recorded group meetings with students and analyzed the transcripts for the purpose of improving her facilitation skills. Although Jean Luc had not been as intentional in his study, he had specifically focused on improving his group facilitation skills, also. Jean Luc described having learned to solicit feedback and input from his colleagues. Both teachers claimed reflective dialogue was a focus of their work with both students and colleagues. The participants' previous experience was discussed in the sessions and an important consideration during the data analysis.

Team A could be considered a typical peer review team, based on the description formed from analyzing the survey. However, Team A was atypical in that they eagerly agreed to participate in this study. Of the 228 teachers in the total population, Jean Luc and Esther were the only two who responded immediately. They were quick to arrange their schedules and claimed throughout the study that they were enjoying the process. Considering no other peer review team in the school district responded in such a way, Team A was atypical.

Team B. Team B consisted of Anika and Danielle, who chose their own pseudonyms for this study. Danielle had 12 years of teaching experience in social studies. Anika had 18 years of

teaching experience in foreign language. Anika and Danielle had been friends and colleagues for six years. During that time, they had frequently collaborated during professional development opportunities in their school. They had also occasionally spent time together outside of contracted hours talking about their work in more personal and social settings. Their familiarity with each other facilitated their reflective dialogue, because they had a basic understanding of each other's experiences.

Team B was not an established peer review team. Both Anika and Danielle had engaged in reflective dialogues with their peers throughout the year, but not as part of a team designed to meet regularly for peer review. Because of the large size of their school and number of full-time teachers, most peer review teams were made up of teachers who taught common subjects or courses. Anika and Danielle were the only full-time teachers teaching their subjects, which left them isolated from their peers. Although they had each completed their IPDP form indicating their instructional coaches and other colleagues would be part of their team, neither had formally participated in a peer review team throughout the year. They had participated in professional learning one or two times per month, but had not formed a consistent team. From my own experience in and knowledge of the high schools in this district, their situation was common for teachers who were the only ones to teach their subject. They were both willing to participate in this study and had some experience together collaborating and engaging in reflective dialogue, so they agreed to participate as a peer review team. This study is focused on reflective dialogue and not the IPDP process itself; Anika and Danielle's participation in the study provided the access to the reflective dialogue required. Although they were not an established peer review team, they had professional goals and were able to engage in reflective dialogue around those goals in Session 1. There were no changes in the proposed procedures or focus of the study.

Research Methodology

This study examines the experiences of high school teachers engaged in reflective dialogues and provides descriptions of their interactions, as well as participants' interpretations of those interactions. The research design uses a hermeneutic phenomenological approach. The focus of the methodology was to generate multiple reflective dialogues in which the dialogic interactions so they would be recorded, transcribed, and analyzed. The methodology also allowed for participants' analysis of their own interactions through a process of reflective questioning. The methodology was designed using a conceptual framework based on the learning theories of Dewey (1933) and Mezirow (1991), and Self-Determination theory of Deci and Ryan (1985). This conceptual framework served to guide the design of both the data collection and data analysis procedures.

Data Collection

The purpose of this study was to describe the dialogic interactions of high school teachers engaged in reflective dialogue. Data were collected through multiple sources: a survey, naturalistic observations, focus groups, and semi-structured interviews, which were structured as sessions and generated multiple reflective dialogues. This section describes the data and how they were collected.

Data in all three reflective sessions were transcriptions from a digital recording of the interactional phenomenon of reflective dialogue. A freelance transcriptionist with some previous experience was used to assist with the process of data collection. She signed a Confidentiality Agreement (Appendix M). She received the audio files for each session on an encrypted file drive, which she also used to save the transcript documents. We communicated by phone and in person between sessions to coordinate delivery of files and compensated for her services.

The data were collected in three sessions, which will now be described. Table 3 provides an overview of the data collection. The transcripts for each session for each team or individual participant are labeled according to team and session number. Transcripts A-1 and B-1 were generated in Session 1 when participants reflected on their goals. The type of data collected from A-1 and B-1 transcripts were dialogic interactions. Session 2 generated transcripts A-2 and B-2 through a process of reflecting on transcripts from the first session. The types of data collected in this session were dialogic interactions, participants' analysis of their team's interactions, and participants' descriptions of their experience (Table 3). In Session 3, participants reflected individually on their transcripts from the two previous sessions. This generated four sets of transcripts, one from each participant. The types of data collected in Session 3 were participants' analysis of their team's interactions and descriptions of their experiences (Table 3).

Table 3

Data Collection

Transcript	Session #	Reflective Dialogue	Data type
A-1, B-1	1	Reflecting on IPDP as peer review	Interactions, analysis, and descriptions of experience
A-2	2	Reflecting on A-1	
B-2	2	Reflecting on B-1	
A-3 J	3	Reflecting on A-1 & A-2	Analysis and descriptions of experience
A-3 E	3		
B-3 D	3	Reflecting on B-1 & B-2	
B-3 A	3		

Session 1. Prior to Session 1, each participant had agreed to meet as a team and signed the consent form. Email was used to schedule a first session for each team. The time, date, and location of the session was discussed and planned in a group email, which included each participant. I prepared two recording options, my laptop computer with an added microphone

attached and a handheld battery-operated recording device. I ensured there was secure storage available on my computer for the audio files. I also tested the recording and playback process prior to conducting Session 1.

Session 1 was designed as a naturalistic observation in which the participating teachers met with their peer review team as they normally do. I was present as a nonparticipant observer. They met during non-teaching contract hours to reflect on the progress of their Individual Professional Development Plans. Team A spent 27 minutes and Team B spent 31 minutes in Session 1. Participating teachers met in the location typically used by their peer review team for meetings: Team A met in an office and Team B met in a member's classroom.

Session 1 relied on the instructions provided to all teachers by the district for the peer review process (Appendix D). The participants expressed they did not remember any specific instructions about the IPDP peer review, so they were provided time to review the documents (Appendix D). Both teams interpreted the instructions as directions to reflect on the progress of their professional goals throughout the school year. Both teams took the approach of discussing certain aspects of their professional work from the school year that was ending at the time of the study.

In the first session, participants were asked to use the existing practice of peer review, as established by the state and their school district. The Individual Professional Development Plan (IPDP) and required peer review was used to generate a starting point for the reflective dialogues needed to complete this study, but it was not the focus of the study. All four participants stated they were only somewhat familiar with the details of the district's requirements for the peer review policies, as well as never having been held accountable for the process other than turning in their IPDP at the beginning of the year. This matched my own experiences with and

assumptions about high school teachers' depth of involvement in the IPDP. The purpose of this study is to describe the dialogic interactions that support learning and motivation in high school teachers' reflective dialogue; it is not focused on the process of peer review itself. Therefore, it was not necessary for participants to follow the district's procedures for the peer review, only that they be prompted to engage in reflective dialogue around their individual goals. The peer review process did provide both teams with a starting point for reflective dialogue.

Each participating member of the peer review team was asked to abide by any previously established team norms, if they existed, as well as maintaining confidentiality, avoiding making judgements, allowing each other the space to articulate thinking, and taking risks in learning (Charteris & Smardon, 2014). These expectations were articulated in the consent form (Appendix C) and the instructions for each session (Appendix D and Appendix E). They were provided in written format and verbalized prior to this session.

After each participant had the opportunity to ask questions about the procedures in the study and the expectations were reviewed (Appendix D), I started the session by beginning the recording. The participants in both teams began their dialogue quickly and did not appear uncomfortable. At times throughout the session, one or both of the participants would look at me, but their focus remained on their team member for the entire session. Both teams were watching the clock, a common habit of teachers, and began to conclude their conversation after approximately 25 minutes. When they indicated the dialogue had concluded, I stopped the recording and immediately saved it in two secure locations on my computer. I thanked each participant and discussed arrangements for scheduling the second session. As described in the Consent Form, the participants were notified they would receive a copy of the transcript prior to

the second session via email. Following Session 1, the transcriptionist was provided with the audio files to be transcribed.

Session 2. Session 2 was scheduled through e-mail once I had been notified the transcript from Session 1 was ready. Each participant was provided a PDF copy of the transcript from Session 1 prior to the second session. Participating teachers met in the location typically used by their peer review team for meetings: Team A in a shared office and Team B in Danielle's classroom. For this session, participants met with their peer review team during contract hours to reflect on the transcript from Session 1. This session was conducted as a focus group in which the participants gathered and I moderated the session, but did not engage in their reflective dialogue (Krueger & Casey, 2012). My plan for moderating was to review the norms and instructions, provide the transcripts, and redirect participants to the task of reflecting on their transcripts if needed. This plan was based on my assumptions that the data itself would provoke and inspire dialogue.

Each participating member of the peer review team was asked to abide by any previously established team norms, as well as maintaining confidentiality, avoiding making judgements, allowing each other the space to articulate thinking, and taking risks in learning (Charteris & Smardon, 2014). These expectations were articulated in the consent form (Appendix C) and the instructions for each session (Appendix D and Appendix E). They were provided in written format and verbalized prior to this session.

In Session 2, the participating teachers were instructed to reflect on the transcripts of reflective dialogue from Session 1 using a self-designed dialogic protocol (Appendix E). I created this procedure to generate the conditions for what Mezirow (1991) described as reflecting on reflection. The protocol directed each participant to take a turn pointing out a

particular interaction or sets of interactions of interest and then inviting the team to discuss it. The protocol called for participants to systematically take turns until all points of interest were discussed (Appendix E). When the participants indicated they understood the instructions for Session 2, I began the recording and they immediately began discussing the transcript. Although each participant was given the transcript prior to the session, both teams took time during their session to pause for reading when needed.

All participants were encouraged to dialogue freely within the established norms (Appendix E) and both teams moved away from the protocol as their dialogue progressed. There was no point in which they made a decision to do so, but they did not follow the protocol systematically. They described their dialogue as having a natural flow and bouncing from idea to idea. As the moderator, I did not force them to use the protocol, because both teams remained engaged in reflective dialogue around the transcripts. Upon reflection after the second session with Team A, I noted that I had been so focused on the dialogue itself, I had forgotten to ask that they follow the protocol. When the same situation happened with Team B, I chose to allow their dialogue to continue without requesting they return to the exact structure of the protocol. In Session 2, both teams engaged in reflective dialogue without fully relying on the systematic protocol.

When the teams indicated they were finished with their dialogue, I stopped recording and immediately saved the audio files in two secure locations on my computer. Session 2 took approximately 30 minutes for both teams, concluding when teachers had reflected on the entire transcript from Session 1. I thanked each participant and informed them that I would contact each one individually to set up Session 3. Following this session, I contacted the transcriptionist and provided her with the audio files.

Prior to Session 3, I conducted an initial analysis of the data to determine critical incidents. This data analysis is discussed in a subsequent section. My initial analysis was important to the data collection process because, through it, I identified interactions upon which to reflect in Session 3.

Session 3. Each of the third sessions, a total of four individual, semi-structured interviews, were scheduled via email with each participant. Session 3 was scheduled for each participant when the transcriptionist completed her work transcribing Session 2. I set up appointments with participants outside of contract hours in each participant's office or classroom. Participants were provided with a PDF copy of their Session 2 transcript via email.

In Session 3, I collected data using a semi-structured interview as an instrument which engaged the participants in critical reflection through dialogue. This generated data on participants' analysis of and experiences in reflective dialogue. Three of the four interviews were 90 minutes in length, while the fourth lasted 30 minutes.

I provided a PDF copy of the questions for the interview in Session 3 (Appendix F) via email to each participant prior to meeting. The questions were designed to gather specific information and descriptions of experiences from the participants to answer this study's research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers?

The interview questions used in Session 3 are listed in Appendix F. Definitions of key words used in the questions were defined on the printed copy of the instructions and questions (Appendix F) and discussed at the beginning of the interview. The key words were defined as

they related to this study: evidence, psychological effect, autonomy, connectedness, and competency. The interview began by asking participants to describe their initial thoughts, a strategy used by Kim and Silver (2016). Participants were asked the following questions. What are you noticing? What stands out to you as you read the transcripts? What are your initial thoughts about this reflective dialogue?

The next line of questioning was based on the concept of learning as described by Dewey (1933) and Mezirow (1991). These questions included (1) in what ways did you experience learning in this reflective dialogue? (2) Were there any specific interactions within the conversation that you can point to that would evidence this learning? (3) What about this (evidence identified by interviewee) led to your learning? (4) What initiated or prompted this learning? (5) How would you describe the process of learning that you engaged in through the reflective dialogue? (6) Can you describe the psychological effect of learning in this dialogue? (7) How did you feel about having learned this?

To elicit potential evidence of transformational learning as described by Mezirow (1991), participants were asked to describe any changes they experienced in their perceptions or assumptions during the reflective dialogue. Follow up questions included (1) What prompted these changes? (2) Were there any specific interactions within the conversation that you can point to that would evidence these changes?

The final line of questioning was designed to gather descriptions of each participant's experiences related to motivation, as described by Deci and Ryan (1985). The participants were asked about experiencing the need for autonomy, competency, and connectedness. They were also asked about their experience feeling autonomous, competent, and connected during reflective dialogue. These questions and their underlying assumptions were based on Self-

Determination Theory, as described by Deci and Ryan (1985). These theorists proposed everyone has these innate, psychological needs. For each factor of motivation (autonomy, competency, and connection), the participants were asked if they had experienced perceiving the need for it. They were then asked to identify any specific interactions within the conversation that provided evidence of that need. Then, they were asked if they felt autonomous, competent, and connected, and what dialogic interactions provided evidence of that experience. Each factor was addressed separately in the questioning in the following order: (1) questions about autonomy, (2) questions about competency, and (3) questions about connection.

This semi-structured format for the interview allowed me to use the questions as described above, but also engage participants in reflective dialogue about their experiences in and perceptions about the reflective dialogues from Sessions 1 and 2. I did not limit myself to the pre-designed questions. I also constructed questions based on the critical interactions I had identified in the transcripts and responses to questions during the third session. I was careful to ask questions that generated more description and clarification of experience. I also asked questions about conflicting evidence that was either evident in the data or suggested by the participant.

Session 3 concluded when I had asked all my questions and both the interviewee and I had agreed to all critical incidents being discussed. At this point, I stopped the recording and saved the audio file to two secure locations on my computer. I took time to thank the participant and provide follow-up contact information. I instructed each participant to contact me if he or she thought of any additional comments or questions. I also informed them they would be receiving a draft copy of my results via e-mail for member checks.

Both teams participated in all three sessions which produced eight dialogues and, therefore eight transcripts. Three of the interviews took approximately 90 minutes and the fourth took 30 minutes. Following each interview, I delivered the audio file to the transcriptionist. After the transcripts for all four had been created and I had reviewed them, I concluded my contract with the transcriptionist. I ensured she did not keep any files and abided by the parameters of our signed Confidentiality Agreement (Appendix M).

Data Analysis

This hermeneutic phenomenological study was designed to gather and analyze the interactions of reflective dialogue among high school teachers. The data analysis generated a description of the teachers' experiences and their perceptions of the interactions. I used two methods to analyze the data: self-designed theory-driven coding (Appendix K) and conventions of conversation analysis (Appendix L). This section describes the methodology used to analyze the data and provides an explanation of the theoretical framework for the data analysis plan.

In my study, data collection and data analysis overlapped in Session 3. Prior to Session 3, I determined initial critical incidents using the self-designed theory-driven codes (Appendix K) and conventions of conversation analysis (Appendix L). During the interviews in Session 3, I also probed responses that seemed to indicate the potential for a deeper understanding of learning and motivation, which was a form of impromptu data analysis. The initial and impromptu data analysis during the collection of data yielded additional and more focused data. My data analysis plan was both structured and flexible, which allowed me to adjust strategies as needed.

Approach. In a hermeneutic phenomenological design, there are no specific requirements for data analysis (Moustakas, 1994; van Manen, 1997). The researcher needs to think on the spot and adjust strategies based on circumstances, specific phrasing, or anything

unusual or interesting that is revealed (Coles, 2003). Moustakas (1994) described an iterative process of looking at the data and engaging the participants in making meaning of their experiences, in order to produce a narrative or an account of their experiences and determine their essence. Van Manen (1997) encouraged a view of essence within hermeneutic phenomenology as a fascinating and unending conversation about the essential understandings of a lived experience through the multidimensional perspectives of both the participant and the researcher. The essence, or essential meanings, of phenomena are understood through this collaborative process of meaning-making (Kafle, 2011). In providing a description of essence, a researcher must reveal the structure of a lived experience in such a way that its previously unseen significance can be understood (van Manen, 1997).

Although bracketing or reductions are required in transcendental phenomenology, hermeneutic phenomenology allows the researcher to be embedded in the experience and in the creation of its meaning (Heidegger, 1962). A hermeneutic phenomenological approach requires the researcher to disclose her assumptions and engage in meaning-making in full transparency (Moustakas, 1994). I disclosed my experiences and assumptions during the interviews, when relevant to the dialogue, rather than bracketing them. As part of the data analysis, I will also describe my experiences and assumptions relevant to this study.

Disclosure. I have experience in reflective dialogue and in the facilitation of critical reflection. Throughout both my personal and professional life, I have attempted to engage in critical reflection as a means for true understanding and transformation. I believe critical reflection conducted within the safety of a healthy relationship, either personal or professional, can yield positive results, and this belief motivates me professionally. I began my doctoral program as an instructional coach in a large high school where I witnessed teachers missing out

on the opportunity of reflective dialogue. I became interested in researching critical reflection because I wanted to understand how better to facilitate the process. In my professional experiences, I have noted that most high school teachers lack the skills and opportunity to engage in effective critical reflection with their peers. It is my assumption that although teachers may be required to participate in the practice of peer review as described in this study, they do not have adequate time for it nor are held accountable for it.

My assumption about the participants in this study was that they understood reflective dialogue enough to accept the opportunity this study provided them. I assumed some skill in and desire for reflective dialogue. Because of my assumptions, I anticipated a collegial atmosphere among both teams throughout the study. I also expected the participants to remain engaged even if they became uncomfortable with the dialogue or the feelings it evoked. These assumptions, as they pertain to the data analysis, are addressed in the research results.

Coding. A total of eight transcripts were coded using self-designed theory-driven coding (Appendix K). I designed these codes to use as an analytic framework (Appendix K). The coding is based on the theories of Dewey (1933), Mezirow (1991), and Deci and Ryan (1985), with examples of evidence found in current research. I engaged in a systematic process of identifying key codes within my conceptual framework and examples of possible indicators described within the research literature reviewed in Chapter 2. I included the examples of possible indicators to facilitate the identification of similar indicators which could be found in the data I collected (Appendix K).

The self-designed, theory-driven codes were organized into a table that identified the code, theoretical element, and example indicators from the literature (Appendix K). The grouping of the codes were based on the outline of my conceptual framework described in detail

in Chapter 2. Codes related to Dewey's (1933) theory of learning, Mezirow's (1991) theory of transformational learning, and Deci and Ryan's (1985) Self-Determination Theory. By aligning the codes to my conceptual framework, they were also aligned to the interview questions used in Session 3. This provided structure to the research process overall.

The code *Systematic* was used to identify systematic reflection (Dewey, 1933) and could be indicated by the use of a protocol (Charteris & Smardon, 2014; Doppenberg et al., 2012; Moore & Carter-Hicks, 2014; Walsh & Mann, 2015); evaluations of data (Walsh & Mann, 2015); and inviting feedback (Tam, 2015). *Problem* was used to indicate instances of problem-posing (Dewey, 1933; Mezirow, 1991). Examples of problem-posing were found when data and evidence are described as problems (Walsh & Mann, 2015). Asking for help while stating a problem (Trust, 2012) and elaborating on and clarifying problems (Tam, 2015) could also indicated an instance of problem-posing. The code *Testing* was used and example indicators included instances of trial and error (Hilden & Tikkamäki, 2013) and a focus on external products and practices (Brendefur et al., 2014; De Neve et al., 2015).

The codes continue with *Discomfort*, an important phase of learning described by both Dewey (1933) and Mezirow (1991). Discomfort was defined as a sense of uncertainty by Dewey (1991) and, more specifically, as fear, shame, or guilt by Mezirow (1991). In the research literature, indicators included silence (Zimmermann & Morgan, 2015); not wanting to offend others in the interaction (Hallam et al., 2015); and articulated or verbally expressed anxiety (Bell & Thompson, 2016). *Language* was the code I used to note specific instances where words or phrases were the focus of the meaning-making between participants (Dewey, 1933; Mezirow, 1991). A process of rewording or trying to find the right word for a particular concept (Ramos-Rodríguez, Martínez, & da Ponte, 2016) or the use of consistent terminology (Kutsyuruba et al.,

2015) could indicate evidence of language in the process of learning. Mezirow (2000) also described consensus as important element of learning. *Consensus* was used when participants seemed to be using their best collective judgment, as evidenced in their process to reach a consensus.

Two codes were used to identify the results of learning. *Certainty* was used to identify what Dewey (1933) and Mezirow (1991) described as a certainty of a person's beliefs and a sense of balance that is achieved after the discomfort or uncertainty in learning is resolved. In the literature, Harper and Nicolson (2013) described this as self-efficacy and Cochran-Smith (2012) called it resiliency. An inner sense of vocation or professional purpose (Gu & Day, 2013) and self-actualization through understanding of one's personal value system (Biktagirova & Valeeva, 2014) were examples of certainty. *New Meanings* was set as the code to indicate the most important element of transformational learning: the intentional consideration of new meanings (Mezirow, 1991). Examples of indicators noted in the literature included questions about professional practices and perspectives (Danielson, 2015; Devlin-Scherer & Sardone, 2013); changes in beliefs and attitudes (Bredefur et al., 2013; Harper & Nicolson, 2013); challenged perspectives (Hepple, 2012); and introspection (Evans, 2012).

Critical reflection, as described by Mezirow (1991), was coded as three different codes: *CR-Content*, *CR-Process*, and *CR-Premise*. When critical reflection is focused on the content of the reflection itself, it could be evidenced by discussing feelings (Bell & Thompson, 2015) or examining the setting of or the situation surrounding the reflection (Farrell & Jacobs, 2016). In the literature, reflecting on the process of reflection is indicated by metacognition (Postholm, 2012; Prytula, 2015) and mutual learning about reflection (Tam, 2015). Finally, critical reflection of the premise of the reflection was suggested in the literature as examining

professional purpose (Patti et al., 2012). For all three of these types of critical reflection, Mezirow (1991) cautioned there could be instances in which the mind blocks out memories or ideas, but are made evident through critical reflection. Charteris and Smardon (2013) described this as surfacing the invisible. I used the code *Memory* to note any dialogic interaction that indicated this was happening.

The final three codes align with Deci and Ryan's (1985) Self-Determination theory. *Autonomy* was used to note both the need for autonomy or evidence of acting autonomously. Autonomy is being in control of your own behavior (Deci & Ryan, 1985). In the literature, Bell and Thompson (2016) noted team-supported individual self-direction was an example of autonomy. Providing space for each other, the freedom to speak openly and authentically, also indicates autonomy (Charteris & Smardon, 2014; Patti et al., 2012).

Connection is described as being part of a social context, belonging to a group, and being attached to other people (Deci & Ryan, 1985). *Connected* was used to indicate interactions that reflected this in the dialogues. The review of literature provided many examples of indicators for connection. Trust et al. (2016) described dialogue that provided professional refuge to teachers, an opportunity to safely discuss difficult professional issues or safely express negative or challenging emotions resulting from professional experiences. Connection is also indicated by an invitation to engage (Brabham et al., 2016); establishing or reassuring confidentiality (Finefer-Rosenbluh, 2016); being accountable to each other (Darling-Hammond, 2013; Pullin, 2013); and understanding each other's perspectives (Moore & Carter-Hicks, 2014). Consideration of the group's perspective (Akoyl & Garrison, 2014) and moving beyond isolation (Bell & Cooper, 2013) were also indicators notes in the literature.

Mastery was the code used to indicate the need for competence or articulated competence (Deci & Ryan, 1985), as well as perfected performance (Mezirow, 1991) in the dialogues. Fullan et al. (2015) and Trust (2012) described this as an expression of professional expertise. Kyndt et al. (2016) and Tucker (2014) described it as a love for learning that could be seen in professional dialogue.

These codes were used to analyze the transcript data from all three sessions of my study, which totaled eight conversations. I used manual, color-coding in the data analysis. Each code was associated with a different colored highlighter purchased for this purpose. As I read through the transcripts, I highlighted dialogic interactions according to the color associated with the code that aligned to both the theoretical description and examples in the literature. For example, I used a purple highlighter to mark dialogic interactions that reflected problem-posing as described by Dewey (1933) and Mezirow (1991). In the margin, I marked *Problem* in purple and added comments or questions to help process the data.

Initial coding took place after Session 2 when I received a copy of the transcripts. The purpose of this initial analysis was to identify critical incidents within the dialogues. I noted interactions that initially indicated processes of learning and either the need for or evidence of autonomy, competency, or connection in preparation for the interviews in Session 3. If these critical incidents were not addressed by the participants in the following session, then I brought them to their attention, thus guiding the reflection. This process allowed me to verify participants' experiences during specific interactions. Those interactions that were verified are reported in the research results. A few interactions could not be verified and were dismissed. Additionally, some interactions were not verified by the participants, but could be verified by evidence within the dialogue itself.

After completing all the data collection, I organized the transcripts with the labels outlined in Table 2. I adjusted the margins on the transcript documents to allow additional space for coding and notes, and printed two copies of each transcript. While listening to the audio recording, I read through each transcript once and underlined potential critical incidents in pencil. I then worked with only one team's transcripts at a time, so I could immerse myself in that team's experience and keep my analysis separate until the final stage of analysis, which will be described. I read each team's transcripts three complete times and used the color-coded highlighting technique described above.

In reading the transcripts, I was first looking at the dialogic interactions themselves, not the content of the dialogue. This was difficult at times, because the content of their dialogue was interesting. During the sessions, I sometimes found myself wanting to engage in the ideas the participants were presenting instead of listening to the language they were using to reflect. Having the dialogic interactions printed out in transcript form allowed me to focus on them and code them according to my own interpretation. This was also helpful for the participants when they began an analysis of their transcripts. By referring to the printed words, we were able to look at the interactions instead of the topics.

In Sessions 2 and 3, the participants themselves analyzed their reflective dialogue and described their experiences. This created three types of data: dialogic interactions, analysis, and descriptions of experience. In Sessions 2 and 3, it was important that I consider all three. I asked myself these questions: (1) How should I code this dialogic interaction? (2) What code would fit this participant's own analysis of his or her interaction? (3) What code would fit this participant's own description of his or her experience? The first question was my attempt to analyze the meanings of the dialogic interactions and formulate a description of the participants'

experiences. The second and third questions were a process for verifying my own analysis with that of the participants. The second and third questions required me to read the transcripts and listen carefully to what the participants were saying, not just how they were saying it

I used the color-coded highlighting process three times to refine the codes and make notes regarding those interactions. On the third read, I listed the codes, looking for commonly coded interactions, analysis, and descriptions of experience among team members, which became initial themes in the coding. On the fourth read of all transcripts, I looked for common codes among all participants from both teams. The interactions that had common codes among at least three participants were listed together. I included, however, the interactions that explicitly reflected an experience of learning or motivation even if experienced by only one participant, because each participant represents a unique interpretation of the phenomenon under investigation (Silverman, 2000).

Because the codes were already organized around the three research questions (Appendix K), the common codes could be matched to the question they answered. After organizing the coded segments of the dialogues, I looked for themes as characteristics of the phenomenon. The themes that emerged were the common aspects within the coded interactions that were most descriptive of the experiences. The interactions that are included in the reported findings were the result of multiple iterations of coding and analysis, using both self-designed theory-driven coding (Appendix K) and conversation analysis (Appendix L), as well as the participants' analysis.

Conversation analysis. My second form of data analysis was conversation analysis (Appendix L). I used conversation analysis even as I was coding, allowing its application to refine the coding and surface aspects of the interaction that could be relevant. Using

conversation analysis in my research allowed me to look carefully at the interaction between teachers engaged in reflective dialogue during critical incidents.

Transcription using the conventions outlined in Appendix L allowed for analysis of actions within the conversation, which is considered the language for reflection (Mann & Walsh, 2013). My research questions focused on teachers' experience with language in dialogic interactions during reflective dialogue and evidence of learning and support for motivation within the interaction, therefore I used conversation analysis to analyze that action. I noted where overlapping or simultaneous talk with brackets ([...]). The transcriber also inserted notes when she was unable to distinguish voices that were overlapping. I used an equal sign (=) to show where latching took place; where the second speaker followed the first speaker with no discernible pause between them. Lengths of pauses before, after, or during critical incidents within the data were measured and recorded in seconds. I used a dash (-) to indicate a cutoff or self-interruption. These transcription conventions allowed me to make a detailed analysis of the interactions and note potential moments where participants might be experiencing something significant.

I analyzed aspects of conversational structure using conversation analysis, such as conversational pairs, turn-taking, and sequences (Kim & Silver, 2016). An analysis of conversational pairs assumed each utterance displays a degree of understanding of the previous utterance (Packer, 2011). By looking at what one person said in response to another person, conversational pairs could be formed which provided empirical evidence of participants' understanding. I analyzed the transcript data for conversational pairs and took note of interactions that supported understanding or indicated misunderstanding. If the point of understanding or misunderstanding was relevant to the evidence of learning, autonomy,

connection, or mastery, I discussed it with the participants individually in Session 3. Printing the transcripts so each speaker's lines were in a different color helped to identify these pairs. The participants were also given color-coded copies so they could see the difference in lines spoken by each of them.

Following the process for conversation analysis, I also analyzed turn-taking in the conversational moves among participants. Sequences within the conversation were also important for analysis. Packer (2011) explains this can be analyzed by looking at how conversational pairs are linked or interrupted. Each of the coded interactions in the conversation were analyzed for what they did and what they represented (Packer, 2011). In my analysis of data, I looked for evidence of learning and factors that support motivation within the conversation as an interaction.

Conversation analysis not only looks for evidence within the conversation, but also that the participants view the evidence in the same way (Packer, 2011). This means my interpretation, as the researcher, was incomplete until I was able to corroborate the meaning of the evidence with the participant. While engaging with the participants, it was important to acknowledge and explore any presuppositions that may have influenced their dialogue. This was accomplished in Sessions 2 and 3 by clarifying understanding and asking if there were any differences in perceptions during the conversations. During Session 3, it became apparent there were some differences in presuppositions that had not been expressed among team members. I was able to address these differences with the second participant.

Within the context of collaborative, reflective conversation, it is critical to note more than just the common language and shared vocabulary, but also the absence of spoken language. In my research design, moments of silence were also coded and analyzed. I asked participants to

reflect on moments of silence within the critical incidents in the dialogue and analyze their experience and perceptions during the acts of silence. For example, I asked questions such as, what were you thinking when you paused in that sentence? How did you feel when your peer was quiet so long?

Language makes thinking, feeling, and reasoning visible to the outside world (Packer, 2011). My data analysis allowed me to interpret the language as dialogic interactions within these high school teachers' reflective dialogue to understand their experiences. I invited the participants themselves into the data analysis by creating space for the participants to truly be heard and engaging them in the process of constructing meaning together. Conversation analysis and theory-driven coding were used to analyze the dialogic interactions, the participants' analysis, and the participants' descriptions of experiences to find out (a) how they experience dialogic interactions in reflective dialogue, (b) how their learning was evidenced in the dialogic interactions, and (c) how self-directed motivation was supported in the dialogic interactions. The following sections describes my findings from the data analysis.

Research Results

This study generated the data necessary to answer my research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers? In this section, the results are presented as common themes within the participants' experiences according to each research question.

Question 1: The Experience of Reflective Dialogue

Each participant experienced the interactions within the reflective dialogues differently, but an analysis of the data revealed seven common themes: (a) discomfort, (b) safety, (c) exploration, (d) storytelling, (e) roles, and (f) missing interactions. The participants experienced varying degrees of discomfort, but also safety with each other throughout the dialogues. They described the dialogues as an exploration in which storytelling was a common strategy. They also took their roles seriously, although those roles were perceived differently by participants. Finally, they missed a few important interactions as they were happening. The transcript data showing these themes within their general experience of the reflective dialogue is presented here

Discomfort. Discomfort was a common experience by the participants; however the cause of their discomfort was not necessarily common. All the participants noted, at some point in the three sessions, their discomfort from being recorded. Jean Luc noted this was soon forgotten as their dialogues progressed. This type of discomfort was caused by the research process and anticipated in this study, but the participants experienced other types of discomfort within the dialogue.

Three of the participants experienced discomfort from looking at their transcript data. Esther offered two explanations for her discomfort. First, it was due to the personal nature of the dialogue, especially in Sessions 2 and 3 where her words were the topic of the reflection. She was uncomfortable about having her pieces of the dialogic interactions be the focus of her dialogue with Jean Luc. Second, she noticed she did not make sense very often: “I can’t help it cause I have thoughts that go on in my head, uh, and then I don’t know, yeah, I either don’t know how to complete them or I have a different thought so I start a new sentence, it’s awful” (Esther, A-3). Although she did not describe it as such, initially she seemed embarrassed by the nature of

her reflection. By the end of her third session, however, her discomfort was replaced by confidence in her need to work through her thoughts in this way.

Danielle and Jean Luc were each the principal speakers within their teams during Session 1 and, upon review of their transcripts, expressed discomfort in the form of guilt during Session 2 for having talked so much. Both participants had common initial reactions to the transcripts. Although she experienced discomfort, Danielle seemed more accepting of it, explaining this was something she knew she tended to do. Jean Luc's discomfort was stronger and he indicated he had not realized this tendency. He also showed more discomfort regarding how it may have made his team member, Esther, feel.

Anika's discomfort was not easily seen. During Session 3, when she was reflecting on her interactions in previous sessions, she explained she had disagreed with Danielle on a critical premise within their dialogue, but had been unable to shift her thinking. She described her discomfort as having been caused by both a conflicting thought she was unable to fully express and her inability to resolve it with her peer. This particular interaction will be explained further in the section about connection.

Safety. Common to all the participants was a feeling of safety within their team and, specifically, the dialogue. During Session 2 with Team A, Jean Luc noted there was no point where he felt uncomfortable with Esther or that she would interrupt him to tell him he was wrong. In Session 3, Esther described feeling safe with Jean Luc to work through her ideas and the thoughts. Team B also expressed feeling safe with each other. Anika told Danielle, "I think we sort of know each other well, so you know I'm not gonna be offended by it" (B-2) in response to reading the interruptions from Session 1. Danielle stated she had talked freely about

her experiences and feelings in the first two sessions. The interactions that communicated their experiences of safety will be presented in the section on connection.

Exploration. Exploration was a common theme that emerged from the transcript data. Team A explored ideas in their dialogues, while Team B explored experiences together. Both teams described this process of exploration using the verb “*bounce*” to illustrate the back and forth nature of the dialogic interactions. When Team A was exploring ideas, one person would pose a partial idea and then together they would co-create it. Here is an example of a co-expressed idea about non-traditional school:

Esther: I mean as far as

Jean Luc: what you learn

Esther: there’s no

Jean Luc: you learn ambiguity is just a place where you can enjoy

Esther: yea, and I mean, there’s, there’s

Jean Luc: it’s that art

Esther: yes it’s art, it’s all art

(laughing)

Esther: Ambiguity, it’s good. Lines up. (A-1)

This piece of interactional data shows the *bouncing* between speakers until the idea is expressed in a way that satisfies them both. There were no pauses between the interactions, but neither were there interruptions, just a continuous latching between the two of them. Danielle and Jean Luc were accustomed to dialoging this way and were comfortable with it. Both of them described having engaged in this kind of dialogic interactions in team meetings with both colleagues and students in their program.

Storytelling. In addition to exploration, the participants described the importance of being able to engage in storytelling. The established process for peer review required teachers to use data when reflecting on their individual professional development. For both teams, this data came in the form of stories. Team B was focused on exploring their experiences from the year through storytelling. As they dialogued, each would describe her individual experience and then note commonalities with each other's experiences. For example, they discovered they both had read the same book. Anika and Danielle's interactions during their exploration focused on clarifying and expanding the details of their individual experiences. As one would describe her experience, the other would ask questions, for example "What was your PLN this year?" (Anika, A-1). Some questions pushed the other to evaluate the experience, for example "What are you weighing when you consider whether or not you're gonna...? Would you do that again?" (Anika, A-1).

Team A also engaged in storytelling, but in a different way. For Jean Luc and Esther, telling a story was how they would support their ideas, pose problems, and propose solutions. In Session 2, Esther explained, "I don't know that we solved any problem, but a lot of what I think we do as a team is, we just kind of walk through these stories that we are experiencing in, and how those stories are the things that are making connections and then through there we kind of learn about ourselves and about what we are doing" (A-2). She interpreted their dialogue as primarily storytelling, but from my standpoint as the researcher, it was a sharp contrast to how Team B used storytelling.

The storytelling contrast between Team A and Team B was in how the storytelling was used in their reflective dialogues. In Team A, Esther and Jean Luc were talking about important concepts and told stories to illustrate and expand on their ideas. While in Team B, Danielle and

Anika were sharing their stories with each other in order to support each other and find commonalities between themselves. For example, in Session 2, Esther and Jean Luc were talking about the value of brainstorming ideas without fear of being ridiculed and Jean Luc told a story of that happening. Danielle and Anika talked about their experiences reforming their grading practices. After they talked about what they had done and found commonalities in their practice, then they considered philosophical implications and discussed the concept of grading using standards. Jean Luc and Esther had many shared experiences throughout the year, whereas Team B had not worked on common projects or in a shared environment, so talking about their experiences was an important starting point for their reflective discussions. Both uses of storytelling were valuable interactions to the participants.

Roles. The dialogic interactions of both teams revealed how each participant experienced a role within the dialogue. In the first session for each team, a principal speaker quickly emerged. For Team A, it was Jean Luc. He started the dialogue and spoke more than Esther. In Team B, Danielle also talked more in the first dialogue. Both Esther and Anika spoke frequently, however. They frequently added a “Yeah,” “Uh-hu,” or “Right” in support of their peer. Esther and Anika both asked more questions than their peer in the first session. From the first session, it could be easy to interpret the interactions as revealing principal and passive roles for each team. However, the interactions changed in the second session and each team began to reflect on their roles. By the third session, each participant was able to provide some insight into how he or she was experiencing roles within the dialogue.

In Session 2, Jean Luc immediately noticed how much he had spoken during the first session and expressed his concern with what he felt was a lack of equity. He wondered aloud if his behavior could be influenced by his gender and an unconscious role of being a white male.

He came back to this point again saying, “Because when you grow up in X or you grow up anywhere in the United States, the males are always, I mean we’re just, we’re not raised for like, what’s the word... You’re implicitly raised to talk all the time and lead and just like be in charge” (A-2). He was not saying this as an excuse, but rather was posing a possible explanation. After seeing his interaction with Esther in Session 1, Jean Luc invited more dialogue from her by asking more questions, but still talked more than she. In thinking about his role within the dialogue, he expressed feeling responsible for the success of the school, the students, and his fellow teachers, which included Esther. The interactions he had with Esther were meaningful to him because he was able to understand her experiences better and enjoyed exploring ideas with her. The data did not show any interactions where he imposed his ideas over hers or demanded his way.

Esther also noted her role within Team A’s dialogue. In Session 2, she explained to Jean Luc that her frequent “Yea’s” and “Uh-hu’s” were purposeful and were her way of directing the conversation. When asked to expand on this further during the interview in Session 3, Esther described her purposeful insertion of affirmations this way, “It’s kind of the verbal equivalent of smiley face emojis” (A-3). She explained her intention within their dialogue to actively listen, which was not a passive role for her. Although she did not necessarily agree with Jean Luc’s proposal that the difference in how much each of them talked was a gender issue, Esther did mention her gender as a possible reason for how she talked when she did. She sometimes felt she needed to start talking even if she was not quite ready with her thoughts in order to “take the air” (A-3), which she explained meant “start talking so that I can get a word in” (A-3). Overall, she perceived her role as an important contributor to the dialogue.

In Team B, Danielle did a majority of the talking in Session 1 and noticed this in Session 2; “I just keep deciding as I look at this that I talk too much” (A-2). She felt badly about having interrupted Anika in Session 1. Danielle stated she knew her tendency to do this prior to this study and was concerned about how Anika perceived it. Danielle seemed to be a natural talker and felt it was important to lead the dialogue to keep it moving. Although she interrupted Anika, she did not dismiss her ideas or try to redirect the conversation away from something that Anika had brought up. Danielle did not seem comfortable with how much she talked, but felt her role in keeping the conversation going had been important.

Anika’s perception of Danielle’s principal role in the dialogue was very different. In response to Danielle’s regret over having talked too much, Anika explained she had perceived her as being excited and interested in the topics they discussed. Her first reaction to seeing the transcripts was “I just think it’s neat” (Anika, B-2). Later, she explained she had heard Danielle’s excitement and found what intrigued and motivated her to be interesting to listen to. When asked to describe her experience being more of a listener in the first session, Anika described wanting to hear what Danielle had to say and choosing to listen and ask questions. “That is my way of being an important part of the conversation” (Anika, B-3). She thought Danielle’s awareness of the imbalance of time talking during Session 2 probably opened up more opportunities for Anika to talk and decreased the need for questions. Anika also proposed this interpretation: “maybe we both felt we were getting what we needed out of the conversation and so it just flows the second time. And maybe the first time we were trying to figure out what we were doing and trying to figure out the process” (B-3). In both teams, the principal talker was not perceived by the other as dominant.

Missed Interactions. In their experiences of the dialogic interactions, a final common theme emerged from the data related to Danielle and Jean Luc, the principal speakers, each missed or unconsciously dismissed important statements made by their peers. The process of reflection and the use of transcript data allowed them to return to these statements later, but, in the moment, they missed or ignored them. Within Team B's dialogue, Danielle did not stop to acknowledge or consider Anika's response to her having talked more in Session 1. As the facilitator in Session 2, I brought Anika's comment to Danielle's attention. Later, in Session 3, Anika revealed how important it was to her for Danielle to understand her point of view.

Danielle also missed another critical incident within the dialogue of Session 2. Analyzing the transcript data, I, too, missed it, but Anika provided insight into what was missed. In Session 2, Danielle was talking about how she would have to take on a responsibility this upcoming year that she is not looking forward to nor feels prepared for. As a way of justifying why she had agreed, she told of a teacher who asks, "Did you get into teaching for this one specific course or did you get into teaching to teach kids?" Danielle admitted to struggling with this question, but ultimately using it to guide her choice in this case. In Session 3, Anika explained she had strongly disagreed with this premise, but had not come out strongly against it in their dialogue. Both Danielle and I had missed her disagreement within the dialogue, although a return to the transcripts did reveal how Anika had been trying to challenge Danielle's thinking. Anika had first tried to pose an opposite point of view from her own experience teaching. Later, she tried to bring up existing evidence of how Danielle's expressed experience opposed this premise. Then she tried to relate to their shared feelings of opposition to the premise. When these things failed to get Danielle to consider an alternative, Anika relented and proposed a possible positive outcome for Danielle, "I'm holding out hope that, that things will work out

fine” (Anika, B-2). Anika explained to me that she wanted Danielle to experience a positive result from her decision.

In Team A, Jean Luc missed or dismissed several statements made by Esther in the moment, but returned to them in a later session. When Jean Luc was asked to read Esther’s explanation of how she used “Yea’s” and “Uh-hu’s” to direct the conversation, he said twice, “I never thought of it that way” (A-3). In session 2, when he and Esther had looked at their interactions together, Jean Luc realized he was unconsciously affected by her affirmations or lack of them. He was able to see how he reacted to her cues by either continuing with his ideas or pausing to get more input from her.

Jean Luc also did not acknowledge Esther’s explanation of her role in their interactions. He was stuck on the explanation that he had assumed the role of principal speaker because of his gender and race, white male. At several points in their dialogue, Esther offered alternative explanations or downplayed how affected she was by this. In his interview in Session 3, Jean Luc said, “She didn’t seem bothered by it, like at all. Although part of me wonders if that is typical American female just trying to make everyone happy but deep down there is this deep-seated brow burning at men. Like something is smoldering somewhere” (A-3). He admitted to doubting her on this and, later, he did it again in regard to another explanation Esther had offered. She had said, “You’re super smart and I like listening to you” (Esther, A-2). In Session 3, Jean Luc acknowledged having heard this and feeling good about it, but also stated, “Although there is this part of me that is like, well, who says that?” (A-3). He brought it up again later and proposed his reaction could be a typical Midwesterner’s reaction to being paid a direct compliment. He thought it was a cultural reaction to think the person might be lying and “they are trying to sell you insurance” (Jean Luc, A-3). These reactions from Jean Luc showed he was

struggling within himself to accept Esther's explanations as authentic. The transcript data combined with the opportunities for analysis allowed participants to see what they had missed, but did not necessarily result in a changed perspective.

Question 2: Interactions that Evidence Learning

The second research question focused on finding the dialogic interactions that evidenced the kind of learning described by Dewey (1933) and Mezirow (1991). Theory-based codes were used to identify possible interactions as evidence, but my analysis also relied heavily on the participants' interpretation of their experiences in relation to the theories presented in my conceptual framework. Within the data collected, there is evidence of (a) meaning-making, (b) problem-posing with hypothesizing, (c) critical reflection, and (d) transformational learning. The interactions that evidence these critical stages of learning are presented in this section.

Meaning-making. Dewey (1933) described meaning-making as a process by which meaning is constructed about experiences and the self through dialogue. It took longer for Team B to get to this stage of learning because much of their dialogue in the first session was used to build a basic understanding of each other's experiences. Their dialogic interactions consisted of describing their experiences and asking questions to clarify details. Team A also engaged in some interactions that were meant to clarify or expand on each other's understanding of an individual's experience, but they came into the reflective sessions with a broader knowledge from having collaborated more often in the school year. Although learning more about each other and each other's experiences was an important foundational part of the dialogue, it did not reflect the kind of meaning-making described by both Mezirow (1991) and Dewey (1933).

Dewey (1933) and Mezirow (1991) explained learning was a process of meaning-making, and shared meaning-making requires uncovering what an individual understands and reaching a

common understanding through the process of language. As they discussed ideas together, dialogue that invited meaning-making became critical. “I wonder what you think about that” (Jean Luc, A-1). “You mean like...” (Esther, A-1). “So I wondered what you figured out...?” (Jean Luc, A-1). “What do you think about that?” (Jean Luc, A-1). “You know what I’m saying? Does that make sense?” (Danielle, B-1). Throughout all the dialogues, the participants used interactions of “Right?” and “Right” or “You know?” and “Uh-hu” to verify understanding and build a shared meaning of the content. None of the participants, however, explicitly verified if consensus had been reached through the interactions.

Problem-posing with hypothesizing. Dewey (1933) identified posing a problem as an important first step, one that went beyond general descriptions and statements of feelings to honest accounts of a problem. Dewey’s (1933) next step in intentional reflection is hypothesis testing, which meant proposing possible explanations or solutions. Both teams had many interactions that qualify as either problem-posing or hypothesizing. Many of the problems they posed included language related to feelings. Examples of words or phrases they used were: “I was really worried” (Jean Luc, A-1), “I still am bothered by that” (Jean Luc, A-1), “I would be surprised” (Esther, A-1), “We get pretty bummed” (Jean Luc, A-1), “I have this fear...” (Esther, A-2), “I feel like...” (Anika, B-1), “makes me nervous...it’s scary to think...” (Danielle, B-1), “I was really shocked” (Anika, B-1), “I knew that I was frustrated” (Anika, B-2), “I get excited” (Danielle, B-2). Neither team explored those feelings further in regard to how they might provide insight into the problems being posed. They did, however, move beyond their feelings to other details regarding the problems in Sessions 2 and 3. Statements of feelings diminished as their dialogues progressed.

In several cases, both teams co-constructed a problem, which is describing the problem collaboratively by each member contributing to a piece of the description of the problem from his or her experiences. Team A's data provided this example of a co-constructed problem:

Jean Luc: As a X teacher especially I really struggled, because every time they talk, I think, Oh, god, oh there's content there they should know. There's a really cool historical and like changed all of humanity man. And they're like, Yah, but we have like this...

Esther: we've got a project to do

Jean Luc: we're struggling with this one thing and this data we have to take. Please stop talking about like 2.5 billion years ago.

Esther: Uh-hu

Jean Luc: But yes, later

Esther: Yea

Jean Luc: we'll ask for that when we're ready

Esther: Right

Jean Luc: But then they won't because the teenager

Esther: I think that's one downfall with that whole thing. I think that in a classroom where, where in a traditional classroom you can do that because you meet every day

Jean Luc: and then some expect me to entertain them

Esther: and they want you

Jean Luc: for, like hours

Esther: like some of the best teaching comes with that kind of thing (A-1)

Jean Luc and Esther had no pauses between the interactions in this example. Even though it could be viewed as interruptions, their interactions were latching together, rather than breaking apart their description of the problem. They described their previous experiences in reflective dialogue as having this same pattern.

The participants proposed possible solutions to or explanations for the problems they discussed. There were several uses of the phrases “what if” and “I wonder”. In Session 2, Jean Luc said, “You know what I wanna do?” and proceeded to propose a plan. They also used storytelling to hypothesize. One teacher would describe a problem and then the other would tell a story about how he or she, or even how someone else, had worked through that problem to find a solution. Only once did a participant propose a direct action in the form of advice: “you should start making videos...” (Esther, A-1). An analysis of the transcript data did not reveal any evaluation of the solutions posed or of their hypotheses.

Critical reflection. Mezirow (1991) claimed reflection must include a critique of content, process, or premise of the reflection itself. This kind of critical reflection, Mezirow (1991) argued, created new meanings and new meaning schemes; new understandings and new ways of understanding. Critical reflection is especially important in making meaning of the past; in helping adults remember their experiences in ways that allow them to make new, more truthful, meanings by challenging mental obstructions. The data revealed interactions of critical reflection.

Both teams reflected on the content and process of their reflection after looking at their transcripts. Team B thought the topics they had discussed in Session 1 had a negative tone. Team A described their content as typical issues often discussed between the two of them. Participants in both teams noted how their interactions had a random flow, in which the focus of

their dialogue had fluctuated between ideas. Team A was the most critical by making comments about *why* they had reflected in that manner and whether or not it had been helpful. Team B did not go beyond making a few statements about their reflective process, but each teacher separately evaluated the process during Session 3. There were no specific interactions that elicited critical reflection from the other teacher in the first two sessions, but each teacher felt free to comment and did so.

Transformational learning. When adults engage in a critique of the premises behind their reflection, transformational learning can happen (Mezirow, 1991). In both teams, critical reflection of the premises behind their interactions were also present, although neither team engaged in reflective dialogue with the intention to critique their assumptions. For both teams, dialogic interactions related to a premise or an assumption were more frequent as the sessions progressed. Well into their first session, Team A began discussing the problem of students who seem to lose momentum in their projects. Esther and Jean Luc described doing everything right according to best practice for student projects, but finding a student who had not followed through with their work.

Esther: Why haven't you done what you said you wanted to do?

Jean Luc: Yeah, you literally picked the task and the partner agreed with you that it was worth doing.

Esther: Yup

Jean Luc: and I said here's the resource, and then sometimes they just think they are unstoppable bowling balls

Esther: Yea

Jean Luc: and they just get it done and then sometimes they come back and they say,
'Welllll, I mean I thought about the musical so I didn't do anything'

Esther: Yea

Jean Luc: and you're like, 'Wha, what?'

Esther: But you said

Jean Luc: But this is dull

Esther: But this is what?

Jean Luc: I'm giving you time

Esther: Right, right

Jean Luc: so that's interesting because our assumption that, is that it just works all the
time

Esther: Uh-hu

Jean Luc: and it's not true

Esther: Right

They posed the problem together and, immediately upon reflecting on their assumption, Jean Luc posed a new meaning perspective: sometimes the premise is not true; sometimes best practices do not work. This is evidence of transformational learning. This was the only example in any of Sessions 1 and 2 for either team where there seemed to be an intentional reflection on an assumption.

Session 2 for each team brought about more interactions regarding their premise or assumption about something. Jean Luc seemed authentic when he talked about his gender and cultural background as a possible reason why he had talked more than Esther in the first session. When Esther did not pick up on his line of thinking, he posed a question: "But isn't that a

problem when you have a mixed gender staff” (Jean Luc, A-2). However, Esther still did not engage in a discussion of this premise, but did talk about other meanings behind their reflective process. As Team A progressed through the sessions, they began to state the questions they were asking themselves. These self-questions were premise questions, for example: “Who’s learning and who’s teaching?” (Esther, A-2), and “How deviant from the model will you let me be?” (Jean Luc, A-2).

Team B had a lengthy discussion regarding the premise that Danielle explained was behind her acquiesce in taking on a new responsibility next year. Anika revealed in Session 3 she had strongly disagreed with Danielle that a teacher must choose between teaching students or teaching a particular course. “I think that’s crap, I do. I think it is a false dichotomy, for me anyway” (Anika, B-3). The interaction between Danielle and Anika was described in the previous section of this chapter. Anika attempted, but failed, to get Danielle to reflect on that premise in a way that led to a new perspective. After reflecting on their interactions in Session 2 over this premise, Anika explained,

But, it also felt like something that was very important to her, I guess. I didn’t disagree as strongly when she was present because it felt like something she was present, because it felt like something she had internalized as a truth for herself. And I feel like I didn’t have the words in the moment to express, maybe as strongly as I’m expressing to you, and I also wanted to honor her. If that’s her opinion, it’s her opinion. I don’t have to agree with it, but... So, how do you honor the person and what they are saying, and, also voice maybe your disagreement with that? (Anika, B-3).

Although their dialogic interactions did not yield the result Anika was hoping for, they did provide Anika with valuable critical reflection on this premise. “I think, you know, maybe

sometimes the things you say to others are the things you also need to hear the most yourself” (Anika, B-3).

Both teams engaged in dialogue that elicited discussion of their professional purpose or vocational calling. This became an all-encompassing premise for everything they discussed.

D: I go back to that question. That question lingers, you know

A: Uh-hu

D: why did you get into teaching? And I think it’s a really good question.

A: Uh-hu (B-2)

Danielle talked about wanting to do a good job because she did not want to let any kid down. Anika talked about being passionate about teaching students her subject. They both affirmed each other’s purposes and even offered examples of how that purpose had been evident in the past.

Team A also talked about their collective professional purpose. Instead of a separate topic, it kept coming up as the anchor piece in their conversation. Jean Luc described it as a magnet. Their vocational calling was the magnet and the ideas, hypotheses, problems, and experiences revolved around this magnet. Esther said, “We circle around these same ideas over and over and over again. But we also just diverge so far from any one path which makes our conversations interesting and engaging. I mean, we just kind of throw all ideas out all the time” (A-2). In Session 3, Jean Luc was able to expand more on their discussion of their magnet in the previous session. “So that magnet, right, is the center post of what is this model that we want to do and everything just kind of orbits around that and is magnetized to it” (Jean Luc, A-3). Throughout their interactions, Jean Luc and Esther did keep circling or referring back to their magnet, their vocational purpose as an innovative school meant to reach students in a non-

traditional approach. For Team A, this magnet, or vocational calling, was never under question, but they used it to question their practices and thinking.

In the semi-structured interview in Session 3, each participant was asked what he or she learned through their reflective dialogues in Sessions 1 and 2. Danielle and Anika talked about learning more about each other's experiences. What seemed to be most important to both of them was learning they had common experiences and could relate to each other in new ways. Jean Luc described learning how Esther did things and realizing there were important connections to be made between his staff. He said his learning was causing him to consider and plan for new protocols for his team that would allow them to intentionally reflect and process in the future. Esther struggled, at first, with this question. She did not think the reflective dialogue in the first two sessions had led to any new learning. However, her reflection in response to the interview questions did generate learning for her in the form of a new realization.

Going back to the learning part, this might be a connection that I made in my head about just having circular conversation be an important part of the philosophy here and just kind of the relationships we have together. How different that is for most teaching environments! (Esther, A-3)

The value of their learning was realized by each participant through the dialogue in Session 3 where each was pressed to consider their interactions more deeply. The reflection in each of the three sessions for both teams can be described as going from random, to focused, to transformational. All learned something, but three of the participants were able to clearly articulate transformational learning during Session 3.

Question 3: Interactions that Support Motivation

Deci and Ryan (1985) claimed people are motivated to grow and develop when they experience competency, autonomy, and connection to others. Having all three of these needs met results in self-directed motivation (Deci & Ryan, 1985). Each participant described both feeling the need for competency, autonomy, and connection; as well as feeling competent, autonomous, and connected during their experiences in Sessions 1 and 2. Using the self-designed theory-based codes and participants' interpretations of their interactions, the dialogic interactions that supported each of these factors of motivation are presented in this section. Although I am presenting the factors in separate sections, the findings showed the interconnection of the three factors, which is included in the results.

Connection. Deci and Ryan (1985) described the need to be part of a social context, belonging to a group, and being attached to other people as the psychological need of relatedness or connectedness. All four participants acknowledged having felt this need for connection throughout their reflective dialogues. All four also reported having felt connected during their interactions, or having had this need met to some degree of satisfaction. Several common types of dialogic interactions that supported connection were found: (a) validation, (b) positive claims, (c) humor, and (d) common experience.

Throughout their reflective dialogues in Sessions 1 and 2, participants offered each other a steady stream of validation. Jean Luc described it this way: "There are lots of comments that fell like verbal high fives" (A-3). The use of "Right," "Uh-hu," and "Yea" while one person as speaking felt affirming. Additionally, there were many examples of interactions where one participant would start a thought and the other would pick it up with a conjunction, like "and,"

“so,” “but,” or no conjunction at all. This created a feeling of connection between the participants because they were thinking together.

Although it was a rare occurrence, each team had at least one example of one teacher making a positive claim about the other teacher. For example, Anika said to Danielle, “And I think maybe one of the reasons why you loving X is that that’s your expertise” (B-2). Jean Luc said to Esther, “This year you’ve been intensely interested in what is your job here” (A-2). These were not compliments, but statements of knowing something important about the person. The receiver heard this and interpreted it as being known and connected to the speaker. These positive claims are included in the findings because the participants themselves indicated they had been very powerful motivators.

Humor was also present in the dialogic interactions and served to connect the participants. Each team had moments of laughter together stemming from shared experiences that seemed funny to them or inside jokes related to previous experiences. Team A was especially prone to laughing about themselves together. They felt safe laughing about simple verbal mistakes they made in their dialogue, which really had nothing to do with the content of their reflection. There was no sarcasm in either team’s dialogue. Esther described the importance of humor in Session 3 saying, “Yeah, so if I can’t find that connectedness or that validation through adding something of intense cerebral value in a conversation, which usually happens, it’s often how those connections happen, then I will just make him laugh. (Laughing.) It’s kind of my place” (A-3).

A connection happened in both teams regarding a book. In their first session, Jean Luc referred to a book he was reading and Esther interjected with the title of the book. Reflecting on that interaction, Jean Luc said, “She knew the book that was my primary source and that was

weird and like, oddly connected” (A-3). Esther also reflected on this interaction, but perceived it as evidence of her competency or autonomy, which will be presented in the next sections. In Team A’s first session, Anika and Danielle discovered they had read the same book about mindsets in their efforts to develop professionally. This common experience, as well as their common thoughts about the book, provided a concrete connection between them.

Competency. Competency is the ability to both affect your environment and be effective in your roles or tasks; to master a task (Deci & Ryan, 1985). All the participants reported feeling the need to be competent and moments of competence within their reflective dialogues. Their competence was a topic within their dialogues, but it was also something they felt they developed during the reflective sessions. Both teams had interactions where participants talked about things they had done well professionally. They provided examples that were primarily self-described, but there were incidents in which one teacher would make note of the other’s competency. The dialogic interactions that evidence both their need to be competent and examples of competency are presented in this section.

As described in the section on roles, Jean Luc and Danielle emerged as the principal speakers in the first two sessions. Both felt guilty about having talked more than their peers in the first session and changed their behavior in the second session. They both talked a little less and inserted more verbal affirmations. Both reported these changes as evidence for seeking mastery of their reflective dialogue and believed the data showed they had improved their performance.

Esther described feeling embarrassed by the data that showed she had trouble making sense sometimes. Upon reflection of the progression of their dialogic interactions, Esther realized the importance of working through her ideas and thoughts out loud with the assistance

of Jean Luc to help make connections between those thoughts or expand on them. In what Esther called “generative conversation” (A-3), she experienced a sense of competency because she understood how she had used the dialogue to form and share important points. “Sometimes it’s hard for me to come up with a fully formed thought before I say it. It might be that I just need to say it and figure out how to say it in order to actually communicate it” (Esther, A-3). This kind of competency was evident with the other participants, as well, although they did not seem as aware of it.

Jean Luc used the word “like” often throughout the first two sessions. In the third session when he seemed to be summarizing his experience and what he had learned, the term disappeared from his speech. He was no longer exploring the concepts, but sure of what he was saying. The dialogic interactions, even when disjointed or incomplete, led to competent speech for each participant.

The claims made about each other, as described in the section on connection, were also dialogic evidence of competency. The receivers in each case felt complimented, which served to build their sense of competency. During their discussion of how much each talked, Esther said to Jean Luc, “And you’re super smart, so I like listening to you” (A-2). This was a significant interaction for Jean Luc. He interpreted her statement as a compliment of his competency. In Team B, Anika felt competent within the dialogue because Danielle had *received* her compliment.

I think sometimes we can be just hard on ourselves and we don’t hear the praise, or we don’t hear...I think sometimes we think we’re not coming across one way and the person is totally receiving us in a different way and I want her to hear that, and know that.
(Anika, B-3).

Their interactions, both giving and receiving positive feedback, supported their sense of competency.

Autonomy. Autonomy is the need to be in control of a person's own behavior (Deci & Ryan, 1985). All four participants described feeling both the need to be autonomous and support for their autonomy within their reflective dialogues, but struggled to identify specific interactions that led to this feeling. Both teams talked about autonomy in the contexts of their dialogues, but it was a challenge to separate autonomy as a topic from the process of feeling autonomous. Rather than seeing interactions which supported autonomy, it was the lack of certain kinds of interactions that seemed to support a sense of autonomy. Both Anika and Esther felt autonomous through their choice to listen more than speak in the first session. Subsequently, Danielle and Jean Luc felt autonomous by their choice to listen more in Session 2.

Although not common among participants, there were some interactions that the participants claimed were evidence of autonomy. Jean Luc noted their team's willingness to struggle with ideas supported feelings of autonomy. No one waited to be told by the other what to do or think. Esther claimed her mention of the title of the book Jean Luc was reading was her way of asserting herself. "It's kind of like, braggy, but I think that it counts for me as autonomous just because it's more of taking control of the, or asserting my, asserting myself as somebody in the conversation that's worth being in the conversation" (Esther, A-3). Allowing each other the freedom to speak openly supported both teams' feelings of autonomy.

The concept of protocols was brought up by both teams in relation to autonomy. The research methodology for this study included instructions for the teams to use any existing protocols for their dialogue in Session 1 and I provided a protocol to guide their dialogue in Session 2. Neither team used any protocols to guide their dialogue in Session 2. Instead they

reflected on the transcript data randomly, but did take turns somewhat. Danielle talked about how their free-flowing dialogue had provided the space necessary for autonomy, suggesting that the use of a protocol might inhibit a sense of autonomy. Jean Luc and Esther also valued the freedom to dialogue freely, but concluded the use of a protocol could be useful. They suggested that using a process of reflecting on reflection could lead to the creation of a protocol based on the mutual needs and individual differences of the team.

Mezirow (1991) described autonomy in the process of learning as becoming self-aware and free from distorted thinking, thus creating a direct link between transformative learning and autonomous thinking. By looking at their transcripts in Session 2, each participant experienced a deeper awareness of their behavior and did something different to change it. “And just being conscious of things makes people do it more or less, depending, you know” (Esther, A-3). Their awareness of what they were saying and how they were saying it, as well as how they interacted with each other, led to improved reflection. Although both Danielle and Jean Luc continued to be the principal speakers in Session 2, they let their partner talk more and asked for input more often. Esther and Anika spoke more and asked less questions. Neither team seemed intent on reaching a balance, but described feeling more in control of their part in the dialogue.

Descriptions from each participant about feeling competent, autonomous, and connected revealed differences in experiences of the same interactions. Compliments made some participants feel competent, while the others felt connected. Dialogue about the shared experience of reading the same book affected a sense of connection, competency, and autonomy for different participants. Choosing to talk less and listen more or choosing to offer more input was evidence for all three factors of self-determined motivation, because it involved the individual’s choice.

Evidence of Trustworthiness

The validity of this study began with a description of the phenomenon under investigation provided through the conceptual framework. A theoretical understanding of reflective dialogue was necessary to validate the descriptions of the participants' experiences. The data presented in this chapter is valid because the accounts of the participants' experiences are represented. I let the participants speak for themselves first and then gave them the opportunity to check my interpretation of their words. This happened in part during Session 3 and in a process of member checking, in which I provided a draft of my findings to each participant to review. No changes or additions were requested.

Transferability is possible to the extent that this sample and their interactions are typical of high school teachers. The reflective dialogue experienced in all three reflective sessions was typical to the experiences of other high school teachers who engage in reflective practices, but also unique to these participants and their circumstances. Transferability is also possible when the study can be replicated. The methodology outlined in both Chapter four and this chapter provide details of the study which can be replicated.

The research I conducted is also dependable in that it is clearly laid out so other researchers can replicate it. I was transparent about my process and my personal involvement, including my decisions regarding qualitative inquiry to ensure dependability of my research design and findings. Participants were allowed to be authentically engaged with me during the research process and my completed research process can be read and reviewed as dependable.

To achieve confirmability in my study, I validated my findings with the participants. In Session 3, each participant was invited to analyze the data and give personal accounts of their experience and perceptions of learning and motivation in the reflective dialogue. Participants

were provided with a brief written description of the factors of motivation which are a focus of this study (Appendix F). Additionally, I answered their questions, as needed, in Session 3, as they were attempting to identify their experiences related to these factors. I did not ask the participants to confirm my analysis. A draft of my research results was also provided to each participant for member checking. None of the participants responded with any requests for changes or additions to the reported findings.

Summary

The interactional data and descriptive data collected in this study was sufficient to answer the research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers? This chapter explained how the data were analyzed and the results of the study. Included in this chapter was a description of the setting of the study, a detailed account of the total population targeted for the study and the demographics of the participants, and a description of the sample. A section also explained the data that was collected and another section outlined the research methodology and analysis plan. A section was also devoted to providing evidence of a trustworthy study. The chapter provided the results of the research, which were organized and described according to the three research questions. A discussion of these findings will be presented in the final chapter.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to research the phenomenon of dialogic interactions in high school teachers' reflective dialogue to understand their experiences and describe the interactions that supported their learning and motivation. By analyzing multiple reflective dialogues using self-designed theory-driven codes and conversation analysis, this study provides a description of how teachers experience learning and motivation in reflective dialogue with their peers. This study collected and analyzed the data to answer the research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers? This concluding chapter provides a discussion of the results, the study's limitations, implications of the results, and recommendations for further research.

Summary of the Results

The results of this study were found through a hermeneutic phenomenological research design, which included procedures for data collection and data analysis that embedded the researcher and engaged participants in making meaning of their own experiences. Two teams of two high school teachers participated in this study. The data collection took place over three sessions of reflective dialogues. In Session 1, the teams used the existing practice of peer review to engage in reflective dialogue of their professional goals. As the researcher, I was a nonparticipant observer. Their dialogue was recorded, transcribed, and the participants were provided a copy prior to the second session. Session 1 produced data in the form of dialogic interactions that could be analyzed.

In Session 2, the teams reflected together on the transcript from Session 1. I moderated the session, but did not engage in the dialogue. Again, their dialogue was recorded, transcribed, and participants were provided a copy prior to the third session. Session 2 produced data in the form of dialogic interactions, participants' analysis of their interactions, and participant's descriptions of their experiences in reflective dialogue.

In Session 3, each participant reflected on his or her transcripts from Sessions 1 and 2 in an individual, semi-structured interview with me. Each participant and I engaged in reflective dialogue together using self-designed questions and open discussion. The questions focused the reflection on participants' experiences with learning and the three factors of self-determined motivation: autonomy, connection, and competency. In Session 3, the questions were designed to encourage the participants to make meaning of their experiences and consider any assumptions related to their dialogue. The dialogue from Session 3 was recorded and transcribed. Session 3 produced data in the form of participants' analysis of their interactions and participant's descriptions of their experiences in reflective dialogue.

The analysis of the data was conducted using self-designed theory-driven codes (Appendix K) and conversation analysis (Appendix L), but also included participants' own analysis of their interactions. The codes (Appendix K) noted key elements of Dewey's (1933) and Mezirow's (1991) theories of learning, as well as Deci and Ryan's Self Determination theory of motivation. The dialogic interactions and the participants' own analyses and descriptions were coded in multiple readings of the transcripts. Coded interactions were also analyzed using conventions of conversation analysis (Appendix L). Interactions that had common codes were grouped and themes emerged as characteristics within the data that answered the research questions. The results were presented as answers to the research questions: (1) how do high

school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers?

Each participant experienced the interactions within the reflective dialogues differently, but there were some commonalities. The participants experienced varying degrees of discomfort, but also safety with each other throughout the dialogues. They described the dialogues as an exploration in which storytelling was a common strategy. They also took their roles within the dialogue seriously, although those roles were perceived differently by participants. Finally, they missed a few important interactions as they were happening.

The results included common evidence of learning. Participants engaged in a process of making meaning of their experiences through dialogue. Both teams had many interactions that qualified as either problem-posing or hypothesizing, even occasionally constructing the description of the problem together. In addition, critical reflection on the content and process of their reflection was common. Critical reflection of the premises behind their reflection yielded some form of transformational learning for each participant at some point in the sessions.

Each participant described feeling the need for competency, autonomy, and connection; as well as feeling competent, autonomous, and connected during their experiences in Sessions 1 and 2. Their need for connection was supported through interactions of validation, positive claims, humor, and common experience. The participants experienced competency through the interactions as they became more self-aware of their dialogue in each session. All four participants described feeling both the need to be autonomous and support for their autonomy

within their reflective dialogues, but struggled to identify specific interactions that led to this feeling. These results are discussed in the following sections.

Discussion of the Results

The results were presented as common themes within the participants' experiences. Each participant's experience was unique, however, and a discussion of how the data were interpreted is necessary for understanding the formulation of the results. This section provides a discussion of the results in general and in relation to each of the research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers?

The context of this study and the attitudes of the participants are an important consideration in this discussion. This study was designed to access high school teachers' reflective dialogue through the established practice of peer review. As the study began and the participants were recruited, it became apparent that this context for reflective dialogue would not provide the sample size I had anticipated. Out of 228 potential participants, it was a struggle to find four willing volunteers. The anecdotal evidence I collected for why this was the case included teachers being too busy to participate and claiming to not see the value in the peer review process. The four participants in this study had a positive attitude about reflective dialogue and valued the process. Their attitude toward reflective dialogue is an important consideration when discussing the results. It should also be noted that for these four high school teachers, the context of this study did provide adequate access to an initial reflective dialogue in Session 1.

Experiencing Reflective Dialogues

The first research question focused on high school teachers' experiences in reflective dialogue. In a phenomenological study, the results should produce a description of the phenomenon, which in this study were the dialogic interactions. The results were generated from common experiences among the participants. An analysis of the transcript data revealed seven common themes: (a) discomfort, (b) safety, (c) exploration, (d) storytelling, (e) roles, and (f) missing interactions.

Experiencing discomfort. All four participants experienced some kind of discomfort during the reflective dialogues. Their discomfort, however, did not come from experiencing the dialogic interactions during the dialogues, but rather from looking at them in the form of written transcripts in the subsequent sessions. When the participants described feeling discomfort, it was because of what they were reading or remembering. No one reported being uncomfortable because of what someone said during the dialogue. Anika did experience some discomfort during a dialogue, but described it more as frustration over not being able to get Danielle to acknowledge her point.

Experiencing safety. Within their dialogues, all four participants experienced a sense of safety in being able to share their thoughts and work through problems. This sense of safety was supported through dialogic interactions that also supported their sense of connection with each other. Within the data, connection and safety could not be separated; the participants felt safe because they felt connected. Even the interruptions experienced by both teams did not seem to undermine this sense of safety. Both teams discussed these interruptions openly without expressing any negative reactions. The participants explained this sense of safety allowed them to speak openly with each other most of the time. The participants' sense of safety within the

dialogue increased the reliability of their descriptions; because they felt safe, I could assume they were more open and honest than if they had not felt safe.

The participants' sense of safety was especially important in Session 3, which involved an individual reflective dialogue with me in the form of a semi-structured interview. I had been present in each of the first two sessions and each participant had already experienced the discomfort of looking at their transcript data in my presence. It was evident, through the willingness of each participant to share his or her experiences, answer personal questions, and engage in critical self-analysis, that the participants felt safe with me.

Being able to explore. Each team described the importance of being able to explore their ideas and experiences within their dialogue. They described this experience as bouncing around an idea or bouncing back and forth with each other about an idea. Their description of these experiences were opposite of a systematic approach, in which they might use a protocol or standard process to develop their thoughts. Although both teams talked about the potential value of a systematic approach, they valued their experiences bouncing or exploring ideas freely and collaboratively.

Telling stories. For the participants in this study, storytelling was an important part of their experiences in reflective dialogue. Stories became the data they analyzed or the data they used to support their ideas. Team B explored their experiences from the year through storytelling. Team A proposed ideas or discussed concepts and told stories to illustrate them. Neither of these storytelling strategies seemed intentional for either team, but they did appear to be common practice. Each team was used to talking to each other in this way. Team A described their previous experience together as focused on key ideas, concepts, and philosophies

as they related to their work. Team B described having had many conversations together at the end of the day as both friends and colleagues who shared that day's stories.

Both approaches to storytelling seemed to yield the same result for the participants; they felt understood. The stories helped illustrate and, therefore, communicate their ideas. Through the stories, the participants found commonalities among their experiences, creating a deeper sense of connection. Telling a story engaged the participants at a personal level and increased both their ability and commitment to understand each other.

Experiencing circumstantial and natural roles. Although there were no assigned roles during Sessions 1 or 2, each participant experienced a circumstantial role within the dialogue. These roles may have been the result of each participant's personality or previous experience in dialoguing within the team and is unknown. Therefore, this discussion refers to circumstantial roles, because they are the roles that emerged in the data in the circumstances designed by the study.

In the first session, a principal speaker emerged in each team, which led to my initial interpretation of the roles as (a) principal and (b) passive. However, these interpretations changed as each participant described his or her experience of those roles. Although both teams had one person who talked more than the other person, those principal speakers did not dominate the dialogue by imposing his or her ideas or verbally dismissing the other person's ideas. The principal speakers in each team adjusted their dialogic interactions in the second session after seeing the transcript data from the first. They spoke a little less and asked more questions, because they were concerned about being perceived as dominant. Each of the principal speakers also described a sense of responsibility for keeping the conversation going, which they had interpreted as needing to talk more.

The other participant in each team seemed, at first, to be more passive. They seemed passive because they talked much less and responded almost constantly to the principal speakers with one-word affirmations. The interactions printed on the transcripts were visually similar between the two teams, with long lines from one speaker broken up frequently with one word at a time from the other speaker. These seemingly passive speakers described experiencing their roles as valuable and intentional. They used one word at a time intentionally to encourage and validate the principal speaker. One participant even described her role as guiding the other speaker. These results indicate that although their roles seemed to be assumed because of their circumstances, each participant wanted to take ownership of their role and interact purposefully within the dialogue.

Team A was composed of a male and a female, natural roles that became a significant part of the descriptions of their experiences. Jean Luc, the male, questioned his interactions within the dialogue and wondered aloud if he tended to dominate the conversation because he was a white male. This idea seemed to disturb him and he was unable to provide an explanation for his behavior that satisfied him. In Session 2, when he proposed an explanation based on gender differences, Esther, the female, did not reply. She did not entertain that idea. In Session 3, when I asked her about it specifically, she also seemed to dismiss their differences as being gender based. However, she did describe past experiences of feeling the need to start talking when there was an opportunity to do so, before someone else did. According to Esther, these experiences of professional interaction in the past year had all been situations in which she had been the only female. Considering the explanations considered by both Esther and Jean Luc, gender could have been a factor in the differences in roles.

Missing significant interactions. The results showed each participant missed or unconsciously dismissed important interactions within their reflective dialogues. Even after reading through the transcript data multiple times, I missed the significance of certain interactions until the participants interpreted them for me. I was unable to collect data in the form of descriptions of their experience missing the interactions, because they did not know they had missed them. Their experiences did not seem significant to them at the time of their oversight. The results indicated that in some examples, the participants and I were simply not aware of alternative perspectives during those missed interactions. In the examples where the interactions seemed unconsciously dismissed, the participants were uncomfortable entertaining the idea being proposed. Their dismissal of the interaction appeared to be a self-defense mechanism to avoid potential discomfort. In yet another example, Jean Luc described experiencing doubt about Esther's interaction being honest, even genuine. Jean Luc had conflicting descriptions of his experiences with missed interactions and the results of the data can only point to those conflicts, not resolve them. Further dialogue and consideration of his experiences could have led to a clearer interpretation, if time had been available.

Experiencing Learning

The second research question focused on describing the dialogic interactions that supported learning as described by Dewey (1933) and Mezirow (1991). Reflection leads to learning when specific steps or elements are part of the process. The results of this study showed some of these steps or elements were evidenced in the interactional data: (a) meaning-making, (b) problem-posing with hypothesizing, (c) critical reflection, and (d) transformational learning. Only common experiences were reported in the results, but each participant's learning was described separately and individually during Session 3. Neither team discussed specific learning

as an intentional outcome of their interactions during Sessions 1 or 2, nor did they describe engaging in reflective dialogue for the explicit purpose of learning something. It would have been interesting to allow the participants the opportunity to collaborate in finding evidence of learning within their interactions. It would have also been interesting to ask them what the purpose of their dialogue had been, other than to participate in this study, because it did not seem to have been learning. This section will discuss the steps or elements of learning found within the results.

Evidence of meaning-making. The findings showed meaning-making was evident in both teams' reflective dialogue during Sessions 1 and 2. The participants used the interactions to construct meaning of their individual and shared experiences. They also used the interactions to develop ideas and concepts. Dialogic interactions such as "You mean like..." and "You know?" served to verify understanding and piece together a shared meaning. Much of their dialogue was this stage of learning, which was a basic stage that set the foundation of mutual understanding. This process of meaning-making was important to the participants, but not explicitly intentional. They wanted to be understood, but none of the participants explicitly checked for understanding at any point in their dialogues. Their reflections and responses in Session 3 would indicate they most valued understanding themselves and making meaning of their own experiences and ideas.

Evidence of problem-posing with hypothesizing. Both Dewey (1933) and Mezirow (1991) explained problem-posing followed by hypothesizing were critical beginning steps in learning. The results of the study showed evidence of dialogic interactions that posed problems or hypothesized. These interactions often included emotional words or words related to specific feelings. Fear, frustration, surprise, and excitement were commonly used to describe problems and potential solutions. It seemed this part of the learning process was deeply connected to the

participants' emotions. The problems were associated with more negative feelings, such as fear and frustration. However, as each team worked through the problems through storytelling and processes of meaning-making, their dialogic interactions became less emotional. This more positive demeanor was not because they had discovered a solution or come to a conclusion. Instead, it seemed the process of problem-posing and hypothesizing moved the participants into a state of feeling connected and capable.

Evidence of critical reflection. Mezirow (1991) claimed reflection must include a critique of content, process, or premise of the reflection itself. This kind of critical reflection, Mezirow (1991) argued, creates new meanings and new meaning schemes; new understandings and new ways of understanding. Critical reflection is especially important in making meaning of the past; in helping adults remember their experiences in ways that allow them to make new, more truthful, meanings by challenging mental obstructions, such as denial or self-deception. The data revealed interactions of critical reflection which accomplished these aspects of learning for the participants.

Esther was the only participant who had experience using transcript data to critically reflect on her own dialogic interactions. Because of this, her teammate, Jean Luc, described being excited to participate in the process with her. They were both eager to read their transcripts and never seemed to stall in their conversation. They wanted to talk about their interactions, both what they had said and how they had dialogued. Even though both of them expressed discomfort from reading their own words and interactions, they described enjoying the process. Their attitude may have been why their reflections were more specific and critical. The members of Team A asked each other why they had said things and proposed explanations together.

Team B had less interactions that could be described as critical reflection. Much of their reflection on their reflective dialogue seemed defensive or explanatory, rather than critically evaluative. They did make some critical statements about their reflection, such as how negative they had been, but failed to discuss or explore their reasons why. It is possible their lack of experience in critical reflection made the dialogue difficult. They had many more pauses than Team A and struggled to keep the conversation moving at times.

The critical reflection that did occur only did so because of the transcript data. There was no indication that either team would have reflected on their dialogue in Session 1 if the data had not been in front of them in Session 2. Their critical reflection, either with each other in Session 2 or with me in Session 3, was spurred by what they saw in the data. Their reflections along with the data surfaced misconceptions between them, missed interactions, and trends that would have otherwise been unrecognized.

Evidence of transformational learning. When adults engage in a critique of the premises behind their reflection, transformational learning can happen (Mezirow, 1991). Neither team engaged in reflective dialogue with the intention to critique their assumptions. There was only one clear example of intentional reflection on an assumption prior to the individual interviews in Session 3. In Session 2, both teams discussed their premises more, but still were not doing so intentionally. Team A began using questions as ways to discuss their own premises, but never purposefully asked each other to consider new meanings. In Team B, Anika attempted to get Danielle to consider the premise behind a situation described in the dialogue, but failed. She described reaching a point where she decided to let it go. It seemed because critical reflection of the premise was not an intentional practice, it was challenging to accomplish for Team B.

As described in the results, both teams were anchored or orientated by their professional purpose. Their dialogic interactions provided evidence of the value they placed on being teachers and serving their students. This premise was not open to question for any of the participants, but they did use this premise, to some degree, to filter other premises. As they posed problems or reflected on the content or processes of their reflective dialogues, they returned multiple times to their vocational calling. I determined these kinds of interactions to be evidence of the process of transformational learning because although the participants were not experiencing an overall paradigm shift, viewing the content or process at hand through that paradigm allowed them to critically reflect.

Experiencing Motivation

The purpose of this study included researching high school teachers' reflective dialogue to find the dialogic interactions that supported factors of autonomous motivation as described by Deci and Ryan (1985). People have an innate psychological need to be autonomous, connected, and competent. As all three of those needs are met, people experience autonomous motivation, which includes both external and internal motivation (Deci & Ryan, 1985). In this study, I attempted to find dialogic interactions that supported these factors of motivation. This section discusses the interactions found to contribute to both the need to be autonomous, competent, and connected, and the experience of autonomy, competency, and connection among the participants.

Before discussing the findings related to motivation, it is important to consider that the participants were motivated to participate in this study. I did not explore what motivated them, but the fact that they were willing to participate allowed me to assume they began the first session with a sense of motivation. As they continued in the study, they remained motivated and finished all sessions willingly. None of the participants, however, replied to me after being given

the draft of my research findings from Chapter 4. This may reflect a lack of motivation or simply a lack of time to complete the task, since they were all busy teachers. This study did not explore whether the participants felt motivated, but it is important to keep in mind that they did experience some sense of motivation as evidenced by their participation in this study.

Experiencing connection. Connection as a factor of motivation emerged as the most evident within the findings. All the participants were able to easily describe sensing a need for connection within their reflective dialogues. They were also able to quickly point out specific interactions in their transcripts that evidenced both the need and the feeling of being connected. As discussed previously, the participants did not seem to have engaged in the dialogue for the purpose of learning. Rather, they described participating as part of their vocational responsibilities. However, their dialogue, as well as their own analysis, indicated they had engaged more so for the purpose of connecting with each other. In the findings, the dialogic interactions that supported their experiences of connection included: (a) validation, (b) positive claims, (c) humor, and (d) common experience.

The participants used one-word statements, like “Yea” and “Uh-hu,” to validate or affirm each other’s statements and thinking processes. They described these validations from both sides of the interactions, claiming they served to keep the conversation going, even directing it. Jean Luc even wondered if he might subconsciously be guided by Esther’s validation. He suggested if he was on to something, she would validate it and he would keep going with that idea. But, if he started to say something that she did not agree with, she might stay silent and he would begin retracting his ideas. I did not see this in the study, except for when he proposed the amount of talking he had done in the first session might be because he was a white male. Esther did not offer as many validations as he explored that idea and he did not return to it. For all the

participants, hearing and using validations was an important part of maintaining a sense of connection.

The positive claims were also a form of validation, but they were more than just one-word statements. In the analysis of the data, the two positive claims were easy to identify because they were so different from the other interactions. They were “you” statements, instead of the “I” or “we” statements used throughout most of transcripts. Each example of the positive claims were statements about the other person that implied a deep and specific knowledge about that person. The participants described these interactions as being very motivating. Dialogic interactions that provided evidence for being known caused the recipient to feel connected.

Dialogic interactions that were humorous supported a sense of connection between the participants. When the participants could find something to laugh about, it connected them. Humor was also evidence of the need for connection. When tension in the dialogue emerged, one of the participants would use humor to diffuse it. This tension came from the discomfort of looking at the data or discussing a difficult topic, not a specific tension between the participants themselves. Humorous interactions seemed to lighten the mood within the dialogue. The participants enjoyed laughing together at times during their dialogues.

It was interesting that both teams talked about how reading the same book made them feel connected. The shared experience of reading the same book could have been watching the same movie or eating at the same restaurant. It was the sharing of an experience that mattered, not necessarily the experience itself. Finding something in common supported their connection.

Experiencing competency. Competency or mastery is an important factor of autonomous motivation. In Session 3, I asked each participant to describe his or her need to feel competent and to find evidence of competency within the dialogic interactions. Prior to Session

3, however, both teams had discussed professional competency on their own. It was clearly an important topic to them. However, finding specific dialogic interactions that evidenced competency was difficult for both the participants and I. Their need for competency was not clear within specific interactions, but each participant confirmed it was a felt need throughout all sessions. The evidence emerged as changes within their dialogue over the course of the three sessions, especially the first two. The participants saw evidence in how their dialogue improved and became more focused. Esther realized she was able to articulate her ideas more succinctly as she talked them out in the dialogues. Jean Luc did not see it for himself, but the transcripts provided clear evidence that he was developing competency in his ability to articulate thoughts as he began to drop the use of “like” in his dialogue. The participants also felt competent when their peers provided them with positive feedback.

Experiencing autonomy. Autonomy was the factor of motivation most difficult to analyze in the data. Autonomy is a person’s need or ability to be in control of his or her own behavior (Deci & Ryan, 1985). All four participants described feeling both the need for and support of their autonomy, but struggled to identify specific interactions that evidenced this. During Session 3, the part of the interview related to autonomy was difficult for both the participant and me. The evidence that emerged was the absence of interactions, rather than specific interactions. At different points in the sessions, each participant felt autonomous from his or her choice to listen more than speak in the first session; the intentional absence of an interaction led to autonomy. Autonomy was also supported by the absence of any interactions that shut down the dialogue. The feeling of freedom to speak was associated with the feeling of autonomy for the participants.

The use of protocols was discussed in relation to autonomy. The participants had conflicting ideas about the use of protocols and whether they would allow or inhibit autonomy. None of the participants individually or teams collectively seemed to reach a conclusion about the use of protocols. Although I designed Session 2 with a protocol, neither team used it. Their discussions about the use of protocols seemed to indicate they were uncomfortable with the use of an external tool that felt imposed upon them. However, in their discussions, they were beginning to explore the possibilities of using a self-designed protocol that would meet their team's needs. The participant's involvement in this study facilitated a growing awareness that intentional reflection could be more effective than random reflection. Although this discussion provided insight into their experiences in reflective dialogue, it did not provide evidence in the form of specific dialogic interactions that supported autonomy.

The process of collecting and analyzing the data yielded valuable insights into how these four teachers experienced reflective dialogues. Finding specific dialogic interactions that supported learning and motivation was, in some cases, problematic. The results are interpretations based on what the participants themselves described and what aligned with research-based claims regarding learning and motivation. A discussion of the results continues in the next section using the literature on reflective dialogue, learning, and motivation.

Discussion of the Results in Relation to the Literature

The results of this study were based on collective interpretations from the participants and me. The participants had only partial knowledge of the research on reflective dialogue and so, their interpretations were based on their own processes of meaning-making and experience. My interpretations were based on the literature on reflective dialogue and the theories of Dewey

(1933), Mezirow (1991), and Deci and Ryan (1985). This section discusses the results of the study in relation to the literature.

The results were presented as common themes within the participants' experiences that answered the research questions: (1) how do high school teachers experience dialogic interaction within reflective dialogue, (2) what evidence of learning is present in the interaction of reflective dialogue among high school teachers, and (3) what factors of self-directed motivation are present in the interaction of reflective dialogue among high school teachers?

Experiences within Reflective Dialogues

The first research question focused on high school teachers' experiences in reflective dialogue. In a phenomenological study, the results should produce a description of the phenomenon, which in this study were the dialogic interactions. The results were generated from common experiences among the participants. An analysis of the transcript data revealed seven common themes: (a) discomfort, (b) safety, (c) exploration, (d) storytelling, (e) roles, and (f) missing interactions.

Working through discomfort. All four participants experienced some kind of discomfort during the reflective dialogues, which did not come from experiencing the dialogic interactions during the dialogues, but rather from looking at them in the form of written transcripts in the subsequent sessions. Both Dewey (1933) and Mezirow (1991) described discomfort in the learning process. Discomfort in the form of a disorienting dilemma can spur learning and the process of learning can cause discomfort. Both of these were evident in the results. The participants articulated anxiety about having to look at their data and the data itself, which is similar to what Bell and Thompson (2016) found in their research of peer observations among teachers. Dewey warned this discomfort often produces psychological protective

mechanisms within the mind of the learner. This may explain why the participants missed or dismissed interactions that caused them discomfort. As the participants embraced their discomfort, as a team and individually, they seemed to accept their mistakes and the possibility of failure. Harper and Nicolson (2013) found a sense of balance and self-efficacy could be produced by working through this kind of discomfort.

Safe reflection. Within their dialogues, all four participants experienced a sense of safety in being able to share their thoughts and work through problems. This sense of safety was supported through dialogic interactions that also supported their sense of connection with each other, but also from successfully working through their discomfort. Trust et al. (2016) described dialogue that provided professional refuge to teachers, an opportunity to safely discuss difficult professional issues or safely express negative or challenging emotions resulting from professional experiences. The data showed connection and safety could not be separated, which is supported by the findings of Finefter-Rosenbluh (2016) who found establishing confidentiality directly correlated with a sense of safety.

Unsystematic exploration. Each team described exploring their ideas and experiences within their dialogue as bouncing around ideas or bouncing back and forth with each other about an idea. Their description of these experiences were opposite of a systematic approach, in which they might use a protocol or standard process to develop their thoughts. The participants seemed to assume what Fienfter-Rosenbluh (2016) found; proceduralism can undermine a sense of autonomy. However, the use of a protocol to facilitate reflective dialogue is supported in the literature (Charteris & Smardon, 2014; Doppenberg et al., 2012; Moore & Carter-Hicks, 2014; Walsh & Mann, 2015). The participants valued the opportunity to explore their ideas and

experiences freely, but discussed the potential value of using a protocol if it was designed for the team's needs.

Storytelling. Storytelling was an important part of the participants' experiences in this study. Thorsen and DeVore (2013) studied teachers' reflection and used digital stories as artifacts. In my study, the participants' stories could also be considered artifacts. Much like they could have used student achievement data, the participants brought their stories to the dialogues as experiences upon which to reflect or evidence to support their ideas. Both approaches to storytelling seemed to yield the same result for the participants; they felt understood. Moore and Carter-Hicks (2014) found reflection on perspectives and experiences allowed their participants to delve deeply into the dilemma or question at hand. In the same way, the participants in this study used storytelling to understand each other, which supported their needs for both competency and connection.

Roles. Both the natural and circumstantial roles that emerged in the data had no relationship to the literature discussed in this study. The dialogic interactions revealed roles as an aspect of the dialogue that was not discussed in the literature on teachers' reflection. Findings related to teachers who talk more or less than their peers, as well as differences between men and women in reflective dialogue were not present in the literature reviewed for this study. This may be because the review of literature was limited to studies of teachers engaged in reflective dialogue. Studies that include a wider range of participants could provide additional insight into the roles people take on during reflection.

Missed interactions. As discussed above, Dewey (1933) cautioned that the mind could protect itself from discomfort in learning by producing psychological mechanisms. Mezirow (1991) also cautioned the mind is protective of the self and often obstructs psychological and

cognitive functions, which result in self-deception and illusion and can distort learning outcomes. What Mezirow called *blind spots* could easily describe what the participants in my study and I experienced when we seemed to miss important interactions. The results indicated the participants and I were simply not aware of alternative perspectives during those missed interactions. In the examples where the interactions seemed unconsciously dismissed, the participants were uncomfortable entertaining the idea being proposed. Other studies reviewed did not report these kinds of results.

Learning in Reflective Dialogue

The second research question focused on describing the dialogic interactions that supported learning as described by Dewey (1933) and Mezirow (1991). The results of this study showed some of the steps or elements of learning in the interactional data. The literature provided evidence that reflective dialogue increased teachers' expertise in learning through collaborative reflection (Lin et al., 2013; Moore & Carter-Hicks, 2014). Although many aspects of learning were evident among the individual participants in this study, only common experiences were reported in the results. This limited the findings, but also ensured the essence of the phenomenon was supported by common experiences and multiple data points. The steps or elements of learning that were evident in the dialogic interactions and descriptions of participants' experiences were (a) meaning-making, (b) problem-posing with hypothesizing, (c) critical reflection, and (d) transformational learning.

Meaning-making. The findings showed meaning-making was evident in both teams' reflective dialogue. Reflection is the process by which meaning is made, because it produces an understanding of the relationships between facts in an event or experience (Dewey, 1933). Although meaning-making in teachers' reflective dialogue was not a specific element discussed

in the literature, ways research could be the opportunity for teachers to engage in systematic meaning-making was present in the literature. Way, Zwier, and Tracy (2015) suggested research could become a means for engaging in critical reflection or research as intervention, primarily when participants are involved in interviews or discussions regarding their own transcript data. Craig, Neijer, and Broedkmans (2013) discussed the process of meaning-making within the researcher-participant relationship, noting dialectic methodology provides this creative opportunity.

A qualitative study of the phenomenon of reflective dialogue allowed for data collection through a process of meaning-making between the researcher and the participants.

Problem-posing with hypothesizing. The results of the study showed evidence of dialogic interactions that posed problems or hypothesized. The literature provided evidence that reflective dialogue helps teachers become aware of problems (De Neve et al., 2015), clarify those problems (Tam, 2015; Trust, 2012), and creatively solve problems (Trust 2012). Walsh and Mann (2015) found data and tools help teachers identify and address the puzzles, issues, or problems together. Tam's (2015) study found teachers examined problems within their practice and could elaborate on those problems through clarifying conversations in reflective dialogue. Having the transcript data focused the participants' problem-posing and hypothesizing during Sessions 2 and 3.

In this study, the interactions associated with problem-posing and hypothesizing often included emotional words or words related to specific feelings. The problems were associated with more negative feelings, such as fear and frustration, while more positive terms were used when proposing a solution or coming to a conclusion. Bell and Thompson (2016) also found

teachers expressed feelings of anxiety but noted how the reflective conversations relieved these feelings.

Critical reflection. Critical reflection is especially important in helping adults remember their experiences in ways that allow them to make new, more truthful, meanings by challenging mental obstructions, such as denial (Mezirow, 1991). The data revealed interactions of critical reflection which accomplished these aspects of learning for the participants. Kyndt et al. (2016) found some teachers engaged in discussion about strategies and reflected on how the strategies did or did not work in practice. Farrell and Jacobs (2016) found teachers included evaluations of their setting in reflection. Reflecting on setting and practice were evident in my study, but the participants' discussions went beyond just their practice. The participants engaged in metacognition much like the teachers in studies by Postholm (2012) and Prytula (2015). They also engaged in mutual learning about reflection as did the teachers in Tam's (2015) study.

The critical reflection that did occur only did so because of the transcript data. This is similar to what Charteris and Smardon (2013) found when they noted transcripts and video surfaced what had previously been invisible to the teacher. Walsh and Mann (2015) proposed reflection must be facilitated by data, because it places the teacher in a researcher's stance.

Transformational learning. When adults engage in a critique of the premises behind their reflection, transformational learning can happen (Mezirow, 1991). Hepple (2012) found teachers' reflections showed evidence of negotiating and reframing their understanding of pedagogy by challenging each other's perspectives or premises. Team A began using questions as ways to discuss their own premises, but never purposefully asked each other to consider new meanings. In Team B, Anika attempted to get Danielle to consider the premise behind a situation described in the dialogue, but failed. Although it did not take place in their dialogue,

changes in beliefs and attitudes can be accomplished by intentional consideration of new meanings (Brendefur et al., 2013; Harper & Nicolson, 2013).

Both teams were anchored or orientated by their professional purpose. This theme is included in the section on transformational learning because their professional purpose was a premise on which they did not critically reflect. It was not open for discussion or evaluation during any of the sessions. Teachers' commitment to their professional calling was also found in studies conducted by Patti et al. (2012). However, in those studies, reflective dialogue through face-to-face peer coaching provided an effective space for teachers to examine their purpose and professional vision (Patti et al., 2012). In a study conducted by Gu and Day (2013), teacher resiliency was closely tied to their connection to an inner sense of vocation. The teachers in my study may have already evaluated their professional purpose and felt it unnecessary to do so in the sessions; or they may have intuitively felt the need to remain connected to that inner sense of vocation without questioning it.

Experiencing Motivation

Biktagirova and Valeeva (2014) found high levels of motivation among teachers who developed their reflective dialogue skills. This study did not focus on whether the participants felt motivated, but rather what dialogic interactions supported the factors of autonomous motivation as described by Deci and Ryan (1985). This section discusses the interactions found to contribute to both the need to be autonomous, competent, and connected, and the experience of autonomy, competency, and connection among the participants.

Connection. All the participants in this study were able to easily describe sensing a need for connection within their reflective dialogues. They were also able to quickly point out specific interactions in their transcripts which pointed to both the need and the feeling of being

connected. The results revealed the participants' sense of connection was supported through statements of validation, positive claims, humor, and common experiences. There were no references to these specific elements of connection in the literature reviewed for this study. Charteris & Smardon (2014) and Patti et al. (2012) discussed how reflective dialogue can provide teachers with the space to reflect, which could align with the validation interactions found in my study. Trust et al. (2012) discussed reflective dialogues as a place where teachers could find professional refuge, but the results in my study seem to point to an even more personal refuge. The participants found connection by being themselves, in addition to their professional persona, which resulted in a safe space for being authentic. This aligns with research findings from Ning, Lee, and Lee (2015) who noted the construction of authentic collegial relationships was critical to building a sense of team among teachers within a group.

Competency. Finding specific dialogic interactions that evidenced competency was difficult for both the participants and me. The evidence emerged as changes within their dialogue over the course of the three sessions, especially the first two. This reflected the literature which discussed how reflective dialogue could develop professional expertise among participants (Fullan et al., 2015; Trust, 2012). In my study, the participants' expressed desire to improve their reflective practice could be considered a love for learning, which Kyndt et al. (2016) and Tucker (2014) found among teachers who developed competency through reflective dialogue.

Autonomy. Autonomy is a person's need or ability to be in control of his or her own behavior. All four participants described feeling both the need for autonomy and support for their autonomy, but struggled to identify specific interactions that evidenced this. Autonomy was supported by the lack of any interactions that shut down the dialogue. In the literature, Bell

and Thompson (2016) noted team-supported individual self-direction was an example of autonomy. Providing space for each other, the freedom to speak openly and authentically, also indicated autonomy (Charteris & Smardon, 2014; Patti et al., 2012). The feeling of freedom to speak was associated with the feeling of autonomy for the participants.

Limitations

There were certain limitations in conducting this study of reflective dialogue. Some participants may not have had adequate knowledge, experience, or skill in the interaction of reflective dialogue. Some participants may have had difficulty expressing themselves. Participants' articulation of their interpretation of their experiences during reflective dialogue may have been limited by a lack of understanding of reflection, learning theory, or self-determination theory. Additionally, general findings from this study are limited by the small sample size and experiences of the participants, who were engaged in reflective dialogue around self-directed topics.

Implications of the Results

This study contributes to the literature on professional reflective dialogue among teachers. The findings from this study provide teachers and administration with insight into the lived experiences of high school teachers engaged in the interaction of reflective dialogue. In this section, implications of the results are discussed in relation to practice, policy, and theory.

Implications on Practice

The results of this study have several implications on the practice of reflective dialogue among high school teachers. This study found transcript data were key to facilitating reflection on reflection. An implication for practice is the use of data to create dissonance and discomfort to lead towards learning. Student achievement data, however, can become a barrier to reflection

because it often causes feelings of distrust among colleagues (Mousethagen, 2013). Therefore, a focus on using the kind of data used in this study might be a better approach. Teachers could, on occasion, record and transcribe their reflective dialogues and review the transcripts together. This practice could facilitate the invitation of other forms of data, such as student achievement data, or could build trust that would facilitate reflection of student achievement data.

The results also showed learning did not happen until the participants had reflected on what they had learned. Three of the four did not reflect on what they had learned until they were asked to do so. It is possible to miss the experience of learning if a teacher does not intentionally think about what learning he or she has experienced. Intentional reflecting on personal learning should be a part of teachers' best practice. School leaders should provide teachers with both the time and support for professional reflection on their learning. The results also showed teachers need a process that facilitates intentional reflection on their own learning. This could be provided in the form of a skilled facilitator or a protocol tool.

The effectiveness of reflective dialogue can be facilitated by specific dialogic interactions. The results showed storytelling could be used to understand and connect with other people. An implication for practice could be to intentionally use stories to explain a point or to ask for a story to illustrate a confusing idea. Implications for intentional validation are also present in the results. Validating or affirming each other builds a sense of connection. It is important to note, however, these validations must be specific and intentional; repeating "uh-hu" unconsciously will most likely not yield a sense of affirmation. Likewise, an intentional positive claim about the other person can also be used to build connection, but the research suggests it be used sparingly. During reflective dialogue, a well-place statement about the other person that shows a deep knowledge and appreciation of that person can be very motivating. Additionally,

finding something in common can build connection. This commonality need not be an aspect of the teachers' professional life to be motivating.

An implication of this study on teachers' practice in reflective dialogue could also be the explicit use of what Team A called a *magnet*. Further discussion of this is included in the section on implications to theory. In regard to an implication on practice, it is important to note this magnet was described as a premise that the participants had previously established. It was their vocational calling, their professional purpose, and it was not a point of debate. Both teams used this premise to guide their discussion. As a point of practice, soliciting the verbalization or articulation of a teacher's professional calling could facilitate more critical reflection. This could be accomplished by asking questions such as: why are you a teacher? Why is this important to you? What is your professional purpose? Once this point of reference is known by other team members, it could also be used as a positive claim to build connection.

The final implication on practice is related to the roles assumed during reflective dialogues. The results suggest participants in a reflective dialogue will take on roles, even when those roles are not assigned. These roles should not be confused with formal roles, such as a committee chair or recorder, but rather are more informal roles assumed due to a variety of factors, such as personality or experience. The implication for practice is to acknowledge the value of those roles and be intentional in fulfilling one's own roles. The results also suggest reflective practice could include an evaluation of those roles and a process for adjusting roles to better serve the purpose of the dialogue.

Two implications for practice are discussed in the following section on policy. The policy of peer review and the policy of protocols are ultimately issues of practice, but must first

be determined at the policy level. The practice of peer review and the practice of using protocols as enforced policies will be discussed.

Implications on Policy

The results of this study contribute to existing policies related to teachers' reflective dialogue. The procedures for participant recruitment for this study exposed some deficiencies in the current enforcement of policies related to the required practice of peer review in the participating district. Potential participants indicated they were not engaging in the practice of peer review as required by the district nor were they using the resources provided to them. Teachers who are encouraged to talk about their practices and reflect on the outcomes of their work feel more accountable to each other and their students because they are compelled by commitments to each other and the common purpose of student achievement (Fullan, Rincón-Gallardo, & Hargreaves, 2015). However, if these policies are not enforced, teachers may not independently choose to benefit from the practice of reflective dialogue. If good, research-based policies are in place, they must be supported, facilitated, and enforced.

In addition to policy enforcement, this study showed data facilitated critical reflection. Using data in reflection can be uncomfortable and many teachers may avoid doing so, if it is not policy. The results of this study have implications on policies that require teachers to generate or use data for intentional reflection with their peers.

This study also discussed the potential benefits of protocols. The participants struggled to decide if protocols would be helpful. Their experiences seemed to align with existing data which claimed proceduralism can inhibit a sense of autonomy (Finefter-Rosenbluh, 2016), but also facilitate purposeful reflection (Moore & Carter-Hicks, 2014; Walsh & Mann, 2015). The participants in this study proposed using protocols which are designed by the team for purposes

determine by the team. Implications are for a policy on the use of protocols that are developed in this way. School leaders could help teams develop individualized protocols that provide opportunity for unstructured exploration of ideas, as well as specific questions a team wants to ask its members. Policies for how protocols are designed and their expected uses could be implemented.

Implications on Theory

The results from this study have several important implications on the theories related to reflective dialogue. It is understood that establishing a sense of safety is required for effective reflective dialogue (Dewey, 1933; Patti et al., 2012). This study showed the participants did not experience safety apart from their experience of connection. Connection was required for safety.

An assumption that most professionals have is that interrupting someone is rude and inhibits a sense of being heard. Cases of interruptions were noted by the participants in their transcripts. In each case, the teacher who interrupted expressed remorse and the other teacher claimed he or she was not offended by it. The results of this study showed a strong personal connection might override the negative effects of interrupting a team member. They may also show that acknowledgement of those specific kinds of dialogic interactions may support a sense of connection. A theory could be formed regarding the power of personal connection in relation to dialogic turn-taking.

Transformational learning was a key theory in this study. Mezirow (1990) described his theory of transformative adult learning as an individual's engagement in a process of self-assessing how problems are posed and personal orientations regarding perception, knowledge, beliefs, feelings, and actions. Although the results of this study aligned with the theory that transformational learning comes from reflection *of* the premise, the results also indicated

transformational learning can happen from reflection *because of* the premise. Both teams had unchallenged assumptions that were used as anchors in their reflection. Team A called theirs a *magnet*, by which all of their practices and theories were either attracted or repelled. Both teams claimed a vocational purpose that superseded critical assessment. Perhaps that process had already been accomplished in a previous dialogue, but it was not included in any of the dialogues recorded for this study. The implication on theory is that some premises may be unquestionable to some teachers, especially when it comes to their vocational calling.

Transformation of Society

The purpose of this study was to describe teachers' experiences in reflective dialogue. This study can contribute to the transformation of society to the extent that it informs and increases the effectiveness of teachers' reflective dialogue. The findings contribute descriptions of specific dialogic interactions that support learning and motivation. As teachers engage in the practices that build connections and facilitate critical reflection, they can experience transformative learning through their dialogues. Transformational learning is a universal concept and one which leads to social action and societal change (Mezirow, 1991). This study produced evidence of transformation among the participants and, so, could also result in transformational learning among other teachers.

Recommendations for Further Research

This study was conducted as a hermeneutic phenomenological study with four participants. The data were collected in three sessions designed to generate reflective dialogues using multiple methods. The purpose of the study was to describe high school teachers' experiences in reflective dialogue and determine the dialogic interactions that supported their

learning and motivation. Future research could be done on a larger sample size using alternate methods.

A Different Focus

Recommendations for further research relate to choosing a different focus on reflective dialogue. In the analysis of the data, it became apparent that the participants may not have a common purpose for their reflective dialogues. Future studies could be designed to question teachers' purposes in reflective dialogue. A focus on the roles within teams engaged in reflective dialogue could also contribute to a better understanding of effectiveness. This study noted roles associated with primary and secondary speakers, as well as gender-based roles, which could be examined in future studies. How these roles are related to teachers' personalities could also be studied.

The design of this study included three sessions in which the second and third sessions allowed for participants' own analysis of the data. This design limited additional opportunities to engage the participants in dialogue related to what was discovered in the third session. A future study could add a fourth session in which the participants are allowed the opportunity to collaborate in finding evidence of learning within their interactions and follow up on what they found individually. This could be especially useful in allowing the participants to explore the interactions they missed. A study on why they missed or avoided certain interactions would require at least one more round of dialogue in the research design.

Finally, I found one particular line from Esther's description of her experience to be a potential focus of future studies. In Session 3, Esther described her purposeful insertion of affirmations this way, "It's kind of the verbal equivalent of smiley face emojis" (A-3). A recommendation for further study would be to ask the research question: how do interactions in

social media forums, which includes the use of characters called emojis to communicate meaning, affect teachers' reflective dialogue? A different focus on teachers' reflective dialogue could generate useful and interesting studies that contribute to the practice of reflection.

A Different Approach

As discussed in the review of literature for this study, many researchers have used a quantitative approach to the study of reflection. Studies using survey data provide evidence of what teachers believe to be effective in their practice of reflective dialogue. However, there were few examples of experimental approaches. This study has generated results which could be studied in an experimental approach. For example, comparative studies of teams that use protocols in contrast to those that do not could generate evidence of best practice. A similar approach could be used to test the effectiveness of certain lines of questioning or the use of positive affirmations. By using an experimental approach, future research could add to what this study has found.

A Different Situation

Teachers engage in reflective dialogue in many different situations and contexts. Future studies could do more to explore the dialogic interactions between teachers in other contexts. These situations could be web-based, such as online professional development classes, blogs, and social media. These situations could also be with different kinds of people, such as instructional coaches, principals, teachers in other content areas or grade levels, or teachers in other geographical locations. As schools become more collaborative with their local communities, research may need to include reflective dialogue between teachers and community members or political activists.

The power of reflective dialogue has been clearly argued in this study. The need for more research to facilitate best practice in reflective dialogue is critical. The potential for future studies that have a different focus, use a different approach or medium, or access different situations is abundant.

Conclusion

The findings from this study provide teachers and administration with insight into the lived experiences of high school teachers engaged in the interaction of reflective dialogue. The results help to identify the specific language *of* reflection and language *for* reflection in reflective dialogue that evidence learning as described by Dewey (1933) and Mezirow (1991), as well as the satisfaction of the need for competency, connection, and autonomy described by Deci and Ryan (1985). The findings include interactional data excerpts expressed in transcriptions from observations, focus groups, and interviews, which can be used for data-led approaches to reflective dialogue. The data were analyzed using self-designed theory-driven coding and conversation analysis. The findings were also based on participants' own interpretations and descriptions of their experiences. The research design serves as a model for those interested in investigating the reflective dialogue of a specific group and as a model for those interested in engaging in reflective dialogue for transformational learning.

Although reflective practices are an expected part of teachers' on-going professional learning, teacher's skill in reflective dialogue is often assumed and ineffective (Marzano, 2010; Weiss, Pelegrino, & Frederick, 2017). The findings in this study contribute specific interactional dialogic data to be used in the practice and facilitation of reflective dialogue among teachers. In a profession where the stakes are high, teacher collaboration is the key to improving professional expertise and increasing student achievement (Hattie, 2015). Structured collaborative reflection

fosters an environment for an optimal professional learning experience, because teachers can critically reflect on their instructional practices and perspectives, but also have their needs for connection, mastery, and autonomy met, resulting in high levels of self-directed motivation.

Reflective dialogue is a collaborative practice that offers teachers the potential for transformational learning and creates the conditions for staying motivated.

References

- Adams, K.A., & Lawrence, E.K. (2014). *Research methods, statistics, and applications*. Thousand Oaks, CA: Sage Publications.
- Akyol, Z., & Garrison, D. R. (2014). The development of a community of inquiry over time in an online course: Understanding the progression and integration of social, cognitive and teaching presence. *Journal of Asynchronous Learning Networks*, 12(3-4), 3-22.
- Anderson, L.W., & Krathwohl, D.R. (Eds.). (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of educational objectives*. New York: Longman.
- Angrosino, M. V. (1994). On the bus with Vonnie Lee: Explorations on life history and metaphor. *Journal of Contemporary Ethnography*, 23(1), 14-28.
- Angrosino, M. V. (2016). *Naturalistic observation*. Walnut Creek, CA: Left Coast Press.
- Arnadah, I. W. (2013). Teacher improvement through peer teacher evaluation in Kenyan schools. *European journal of training and development*, 37(7), 635-645.
- Arslan, F. Y., & Ilin, G. (2013). Effects of peer coaching for the classroom management skills of teachers. *Journal of Theory & Practice in Education (JTPE)*, 9, 43-59.
- Bell, M. & Cooper, P. (2013). Peer observation of teaching in university departments: A framework for implementation. *International Journal for Academic Development*, (18)1, 60-73.
- Bell, A., & Thomson, K. (2016). Supporting peer observation of teaching: collegiality, conversations, and autonomy. *Innovations in Education and Teaching International*, 1-9.
- Berg, B. L. (2007). *Qualitative research methods for the social sciences*, [6th ed.]. Boston, MA: Pearson and Allyn & Bacon.

- Berman, J. (2013). Utility of a conceptual framework within doctoral study: A researcher's reflections. *Issues in Educational Research*, 23(1), 1-18.
- Biktagirova, G. F., & Valeeva, R. A. (2014). Development of the teachers' pedagogical reflection. *Life Science Journal*, 11(9), 60-63.
- Bloom, B.S., Engelhart, M.D., Furst, E.J., Hill, W.H., & Krathwohl, D.R. (1956). A taxonomy of educational objectives: The classification of educational goals. New York: McKay.
- Boyd, A. S., & Glazier, J. A. (2017). The choreography of conversation: An exploration of collaboration and difficult discussions in cross disciplinary teacher discourse communities. *The High School Journal*, 100(2), 130-145.
- Brabham, B. C., Nichols, J. A., Rupley, W. H., Nichols, W. D., Rasinski, T. V., & Paige, D. (2016). Teachers' perceptions and implementation of professional development in writing instruction. *Journal of Studies in Education*, 6(3), 32-61.
- Brendefur, J. L., Whitney, B., Stewart, R. A., Pfister, J., & Zarbinisky, J. (2014). Instructional learning teams: A case study. *Journal of Curriculum and Teaching*, 3(1), p36.
- Brinkmann, S. (2013). *Qualitative interviewing: Understanding qualitative research*. New York, NY: Oxford University Press.
- Brix, J., Grainger, P., & Hill, A. (2014). Investigating mandatory peer review of teaching in schools. *Australian Journal of Teacher Education*, 39(4), 5.
- Camburn, E. M., & Han, S. W. (2015). Infrastructure for teacher reflection and instructional change: An exploratory study. *Journal of Educational Change*, 16(4), 511-533.
- Charteris, J., & Smardon, D. (2013). Second look—second think: A fresh look at video to support dialogic feedback in peer coaching. *Professional Development in Education*, 39(2), 168-185.

- Charteris, J., & Smardon, D. (2014). Dialogic peer coaching as teacher leadership for professional inquiry. *International Journal of Mentoring and Coaching in Education*, 3(2), 108-124.
- Chester, A., Clarke, A., Wingrove, D., & Denny, B. (2013). Talking about teaching: empowering staff through peer partnerships. *Enhancement and Innovation in Higher Education*, 568-575. The Quality Assurance Agency for Higher Education.
- Chick, M. (2015). The education of language teachers: instruction or conversation? *ELT Journal*, 69(3), 293-307.
- Chupina, V., Pleshakova, A., & Konovalova, M. (2016). Methodological and pedagogical potential of reflection in development of contemporary didactics. *International Journal of Environmental & Science Education*, (11)40, 6988-6998.
- Cochran-Smith, M. (2012). A tale of two teachers: Learning to teach over time. *Kappa Delta Pi Record*, 48(3), 108-122.
- Cohen, L. & Manion, L., (1994). *Research methods in education* (4th ed.). London: Routledge.
- Coles, R. (2003). *Children of crisis*. New York: Bay Back Books.
- Cortazzi, M. (2014). *Narrative analysis* (Vol. 12). New York: Routledge.
- Craig, C. J., Meijer, P. C., & Broeckmans, J. (Eds.). (2013). *From teacher thinking to teachers and teaching: The evolution of a research community* (Vol. 19). Emerald Group Publishing.
- Creswell, J. W. (2013). *Qualitative inquiry & research design: Choosing among five approaches* (3rd Ed.). Thousand Oaks, CA: Sage Publications.
- Danielson, C. (2015). Framing discussions about teaching. *Educational Leadership*, 72(7), 38-41.

- Darling-Hammond, L. (2013). When teachers support and evaluate their peers. *Educational Leadership*, 71(2), 24-29.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: University Rochester Press.
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology*, (49)3, 182-185.
- De Neve, D., Devos, G., & Tuytens, M. (2015). The importance of job resources and self-efficacy for beginning teachers' professional learning in differentiated instruction. *Teaching and Teacher Education*, 47, 30-41.
- Devlin-Scherer, R., & Sardone, N. B. (2013). Collaboration as a form of professional development: Improving learning for faculty and students. *College Teaching*, 61(1), 30-37.
- de Vries, S., Jansen, E. P., & van de Grift, W. J. (2013). Profiling teachers' continuing professional development and the relation with their beliefs about learning and teaching. *Teaching and Teacher Education*, 33, 78-89.
- Dewey, J. (1903). Democracy in education. *The Elementary School Teacher*. 4(4), 193-204.
- Dewey, J. (1910). *How we think*. Lexington, MA: D. C. Heath.
- Dewey, J. (1927). *The public and its problems*. XX: Holt Publishers.
- Dewey, J. (1933). *How we think: A re-statement of the relation of reflective thinking to the education process*. Boston, MA: DC Heath & Co.

- Doppenberg J. J., Brok, P. J., & Bakx, A. W. E. A. (2012). Collaborative teacher learning across foci of collaboration: Perceived activities and outcomes. *Teaching and Teacher Education, 28*(6), 899-922.
- Drew, S., & Klopper, C. (2014). Evaluating faculty pedagogic practices to inform strategic academic professional development: A case of cases. *Higher education, 67*(3), 349-367.
- DuFour, R. (2014). Harnessing the power of PLCs. *Educational Leadership, (71)*8, 30-35.
- Duyar, I., Gumus, S., & Sukru Bellibas, M. (2013). Multilevel analysis of teacher work attitudes: The influence of principal leadership and teacher collaboration. *International Journal of Educational Management, 27*(7), 700-719.
- East, M. (2014). Mediating pedagogical innovation via reflective practice: a comparison of preservice and in-service teachers' experiences. *Reflective Practice, 15*(5), 686-699.
- Evans, R. (2012). Getting to no: Building true collegiality in schools. *Independent School, 71*(2), n2.
- Fallon, L. M., Collier-Meek, M. A., Maggin, D. M., Sanetti, L. M., & Johnson, A. H. (2015). Is performance feedback for educators an evidence-based practice? A systematic review and evaluation based on single-case research. *Exceptional Children, 81*(2), 227-246.
- Farrell, T. S., & Jacobs, G. M. (2016). Practicing what we preach: Teacher reflection groups on cooperative learning. *TESL-EJ, 19*(4), n4.
- Finefter-Rosenbluh, I. (2016). Behind the scenes of reflective practice in professional development: A glance into the ethical predicaments of secondary school teachers. *Teaching and Teacher Education, (60)*, 1-11.
- Frank, A. W. (2005). What is dialogical research and why should we do it? *Qualitative Health Research, (15)*7, 964-974.

- Freebody, P. (2003). *Qualitative research in education: Interaction and practice*. London, Thousand Oaks, New Delhi: Sage Publications.
- Friesen, N., Nenriksson, C., & Saevi, T. (Eds.). (2012). *Hermeneutic phenomenology in education: Method and Practice*. Rotterdam, Netherlands: Sense Publishers.
- Fullan, M., Rincón-Gallardo, S., & Hargreaves, A. (2015). Professional capital as accountability. *Education Policy Analysis Archives*, 23(15), n15.
- Gandhi, R., Veeraraghavan, R., & Toyama, K. (2016). Digital green. In R. Steiner & D. Hanks (Eds.). *Harnessing the power of collective learning: Feedback, accountability and constituent voice in rural development*. 16-30. New York, NY: Routledge.
- Gerring, J. (2001). *Social science methodology: A critical framework*. New York, NY: Cambridge University Press.
- Gelfuso, A., & Dennis, D. V. (2014). Getting reflection off the page: The challenges of developing support structures for preservice teacher reflection. *Teaching and Teacher Education*, 38, 1-11.
- Giorgi, A. (2008). Concerning a serious misunderstanding of the essence of the phenomenological method in psychology. *Journal of Phenomenological Psychology*, 39(1), 33-58.
- Glazier, J. A., Boyd, A., Hughes, K. B., Able, H., & Mallous, R. (2016). The elusive search for teacher collaboration. *The New Educator*, 1-19.
- Gu, Q., & Day, C. (2013). Challenges to teacher resilience: Conditions count. *British Educational Research Journal*, 39(1), 22-44.

- Hallam, P. R., Smith, H. R., Hite, J. M., Hite, S. J., & Wilcox, B. R. (2015). Trust and collaboration in PLC teams teacher relationships, principal support, and collaborative benefits. *NASSP Bulletin*, 99(3), 193-216.
- Harper, F., & Nicolson, M. (2013). Online peer observation: Its value in teacher professional development, support and well-being. *International Journal for Academic Development*, 18(3), 264-275.
- Hartas, D. (Ed). (2015). *Educational research and inquiry: Qualitative and quantitative approaches*. New York, NY: Bloomsbury Publishing.
- Hatton, N., & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching & Teacher Education*, 11(1), 33–49.
- Heidegger, M. (1962). *Being and Time*. New York, NY: Harper & Row.
- Hendry, G. D., & Oliver, G. R. (2012). Seeing is believing: The benefits of peer observation. *Journal of University Teaching and Learning Practice*, 9(1), 7.
- Hepple, E. (2012). Questioning pedagogies: Hong Kong preservice teachers' dialogic reflections on a transnational school experience. *Journal of Education for Teaching*, 38(3), 309-322.
- Hilden, S., & Tikkamäki, K. (2013). Reflective practice as a fuel for organizational learning. *Administrative sciences*, 3(3), 76-95.
- Hill, H. R., Crowe, T. P., & Gonsalvez, C. J. (2016). Reflective dialogue in clinical supervision: A pilot study involving collaborative review of supervision videos. *Psychotherapy Research*, 26(3), 263-278.
- Hitchens, M. (2014). Six questions. In J. Sachs & M. Parsell (Eds.), In J. Sachs & M. Parsell (Eds.), *Peer Review of Learning and Teaching in Higher Education* (pp. 85–102). Netherlands: Springer.

- Horn, I. (2005). Learning on the job: A situated account of teacher learning in high school mathematics departments. *Cognition and Instruction*, 23(2), 207-236.
- Houde, J. (2006). *Andragogy and motivation: An examination of the principles of andragogy through two motivation theories*. Paper presented at the Academy of Human Resource Development International Conference, Columbus, Ohio.
- Husserl, E. (1983). *Ideas pertaining to a pure phenomenology and to a phenomenological philosophy. Book One: General introduction to a pure phenomenology* (F. Kersten, Trans.). The Hague: Nijhoff.
- Ixer, G. (2016). The concept of reflection: Is it skill based or values? *Social Work Education*, (35)7, 809-824.
- Jaeger, E. L. (2013). Teacher reflection: Supports, barriers, and results. *Issues in Teacher Education*, (22)1, 89-104.
- Johannes, C., Fendler, J. & Seidel, T. (2012). Teachers' perception of the learning environment and their knowledge base in a training program for novice university teachers. *International Journal of Academic Development*, 1-14.
- Kafle, N. P. (2011). Hermeneutic phenomenological research method simplified. *Bodhi: An Interdisciplinary Journal*, 5, 181-200.
- Kim, Y., & Silver, R. E. (2016). Provoking reflective thinking in post observation conversations. *Journal of Teacher Education*, 67(3), 203-219.
- Kimball, S. M., Rainey, K. M., & Mueller, M. (2016). Learning-centered teacher evaluation in Wisconsin. *Handbook of Research on Professional Development for Quality Teaching and Learning*, 618-633.

- Knight, J. (2012). Coaching to improve teaching: using the instructional coaching model. In C. van Nieuwerbergh (Ed.), *Coaching in Education: Getting Better Results for Students, Educators, and Parents*, (pp. 93-113). London, UK: Karnac.
- Konstantopoulos, S. (2014). Teacher effects, value-added Models, and accountability. *Teachers College Record*, 116(1), n1.
- Konradt, U. & Edkardt, G. (2016). Short-term and long-term relationships between reflection and performance in teams: Evidence from a four-wave longitudinal study. *European Journal of Work and Organizational Psychology*, (25)6, 804-818.
- Krueger, R. A., & Casey, M. A. (2008). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: SAGE Publications.
- Kutsyruba, B., Christou, T., Heggie, L., Murray, J., & Deluca, C. (2015). Teacher collaborative inquiry in Ontario elementary schools: An analysis of provincial and school board policies and support documents. *Canadian Journal of Educational Administration and Policy*.
- Kvale, S. & Brinkmann, S. (2008). *InterViews: Learning the craft of qualitative research interviewing*. (2nd ed.). Thousand Oaks, CA: Sage.
- Kyndt, E., Gijbels, D., Grosemans, I., & Donche, V. (2016). Teachers' everyday professional development mapping informal learning activities, antecedents, and learning outcomes. *Review of Educational Research*, 0034654315627864.
- LaBoskey, V.K. (1993). A conceptual framework for reflection in preservice teacher education. In J. Calderhead & P. Gates (Eds.), *Conceptualizing reflection in teacher development*. London: Falmer.

- LaBoskey, V.K. (1994). *Development of reflective practice. A study of preservice teachers*. New York: Teachers College Press.
- Lamb, P., Lane, K., & Aldous, D. (2013). Enhancing the spaces of reflection: A buddy peer-review process within physical education initial teacher education. *European Physical Education Review*, 19(1), 21-38.
- Lin, H. S., Hong, Z. R., Yang, K. K., & Lee, S. T. (2013). The impact of collaborative reflections on teachers' inquiry teaching. *International Journal of Science Education*, 35(18), 3095-3116.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Newbury Park, CA: Sage Publications.
- Machi, L. A., & McEvoy, B. T. (2012). *The literature review: Six steps to success*. Thousand Oaks, CA: Corwin Press.
- MA, A. W. W. (2013). Evaluating how the computer-supported collaborative learning community fosters critical reflective practices. *Interdisciplinary Journal of E-Learning and Learning Objects*, (9), 51-75.
- Major, C. H., & Savin-Baden, M. (2010). *Introduction to qualitative research synthesis: managing the information explosion in social science research*. New York, NY: Routledge.
- Mann, S., & Walsh, S. (2013). RP or 'RIP': A critical perspective on reflective practice. *Applied Linguistics Review*, 4(2), 291-315.
- Masuda, A. M., Ebersole, M. M., & Barrett, D. (2012). A qualitative inquiry: Teachers' attitudes and willingness to engage in professional development experiences at different career stages. *Delta Kappa Gamma Bulletin*, 79(2), 6-14.

- Matsuda, Y. (2016). Roles of planners in a communicative survey-a case of distant refugees from eastern Japan. *Japan Social Innovation Journal*, 6(1), 61-70.
- Mausethagen, S. (2013). A research review of the impact of accountability policies on teachers' workplace relations. *Educational Research Review*, (9), 16-33.
- Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review*, (62)3, 279-300.
- Maxwell, J. A. (2012). *A realist approach for qualitative research*. Thousand Oaks, CA: SAGE Publications.
- McClanahan, D. L. (2015). Teachers' pedagogical reasoning in a professional learning community [PDF]. Retrieved from http://arizona.openrepository.com/arizona/bitstream/10150/565914/1/azu_etd_14028_sip1_m.pdf
- McDonald, J. P., Mohr, N., Dichter, A., McDonald, E. C. (2013). *The power of protocols: An educator's guide to better practice*. New York: Teachers College Press.
- McMillan, J. H. (2012). *Educational research: Fundamentals for the consumer*. Upper Saddle River, NJ: Pearson.
- Mezirow, J. (1990). *Fostering critical reflection in adulthood: A guide to transformative and emancipatory learning*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. (1991). *Transformative dimensions of adult learning*. San Francisco, CA: Jossey-Bass.
- Mezirow, J. (2000). Learning to think like an adult: Core concepts of transformation theory. In J. Mezirow (Ed.). *Learning as transformation: Critical perspectives on a theory in progress* (3-33). San Francisco, CA: Jossey-Bass.

- Moon, J. A. (2013). *Reflection in learning and professional development: Theory and practice*. New York: RoutledgeFalmer.
- Moore, J. A. & Carter-Hicks, J. (2014). Let's talk! Facilitating a faculty learning community using a Critical Friends Group approach. *International Journal for the Scholarship of Teaching and Learning*, (8)2. Retrieved from <http://digitalcommons.georgiasouthern.edu/ij-sotl/vol8/iss2/9>
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks, CA: SAGE Publications.
- Ning, H. K., Lee, D., & Lee, W. O. (2015). Relationships between teacher value orientations, collegiality, and collaboration in school professional learning communities. *Social Psychology of Education*, 18(2), 337-354.
- O'Connor, C., & Michaels, S. (2007). When is dialogue 'dialogic'? *Human Development*, 50, 275-285.
- Olson, K. (2011). *Essentials of qualitative interviewing*. Walnut Creek, CA: Left Coast Press.
- Owen, S. (2014). Teacher professional learning communities: Going beyond contrived collegiality toward challenging debate and collegial learning and professional growth. *Australian Journal of Adult Learning*, 54(2), 54.
- Packer, M. (2011). *The science of qualitative research*. New York, NY: Cambridge University Press.
- Patti, J., Holzer, A. A., Stern, R., & Brackett, M. A. (2012). Personal, professional coaching: Transforming professional development for teacher and administrative leaders. *Journal of Leadership Education*, 11(1).

- Patton, MQ. (1999). Enhancing the quality and credibility of qualitative analysis. *Health Services Research. 34*(5), 1189-1208.
- Pentland, A. (2014). *Social physics: How good ideas spread-the lessons from a new science*. New York: Penguin.
- Pink, D. H. (2011). *Drive: The surprising truth about what motivates us*. NY: Riverhead Books.
- Poom-Valickis, K., & Mathews, S. (2013). Reflecting others and own practice: An analysis of novice teachers' reflection skills. *Reflective Practice, 14*(3), 420-434.
- Postholm, M. B. (2012). Teachers' professional development: a theoretical review. *Educational Research, 54*(4), 405-429.
- Pullin, D. (2013). Legal issues in the use of student test scores and value-added models (VAM) to determine educational quality. *Education Policy Analysis Archives, 21*(6). Retrieved from <http://dx.doi.org/10.14507/epaa.v21n6.2013>
- Prytula, M. P. (2012). Teacher metacognition within the professional learning community. *International Education Studies, 5*(4), 112.
- Quinn, D. M., Kane, T., Greenberg, M., & Thal, D. (2015). Effects of a video-based teacher observation program on the de-privatization of instruction: Evidence from a randomized experiment. *Center for Education Policy Research*. Harvard Graduate School of Education.
- Reinke, W. M., Stormont, M., Herman, K. C., & Newcomer, L. (2014). Using coaching to support teacher implementation of classroom-based interventions. *Journal of Behavioral Education, 23*(1), 150-167.
- Robbins, P. (2015). *Peer coaching to enrich professional practice, school culture, and student learning*. US: ASCD.

- Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *Teachers College Record*, 104(4), 842-866.
- Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*, 25, 54-67.
- Ryan, R. M., & Deci, E. L. (2016). Facilitating and hindering motivation, learning, and well-being in schools: Research and observations from Self-Determination Theory. In K. R. Wentzel & D. B. Miele (Eds.), *Handbook of Motivation at School*. New York, NY: Routledge.
- Sacks, H. (1984). Notes on methodology. In J. M. Atkinson & J. Heritage (Eds.), *Structures of social action: Studies in conversation analysis*. Cambridge, UK: Cambridge University Press.
- Santagata, R., & Guarino, J. (2012). Preparing future teachers to collaborate. *Issues in Teacher Education*, 21(1), 59-69.
- Seashore Louis, K., & Lee, M. (2016). Teachers' capacity for organizational learning: The effects of school culture and context. *School Effectiveness and School Improvement*, 1-23.
- Seidman, I. (2006). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York, NY: Teachers College Press.
- Sempowicz, T., & Hudson, P. B. (2012). Mentoring preservice teachers' reflective practices towards producing teaching outcomes. *International Journal of Evidence Based Coaching and Mentoring*, 10(2), 52-64.
- Silverman, D. (2005). *Doing qualitative research: A practical handbook*. London, England: Sage Publications.

- Simoncini, K. M., Lasen, M., & Rocco, S. (2014). Professional dialogue, reflective practice and teacher research: Engaging early childhood preservice teachers in collegial dialogue about curriculum innovation. *Australian Journal of Teacher Education (Online)*, 39(1), 27.
- Smith, D. W. (2016). Phenomenology. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. Retrieved from <https://plato.stanford.edu/archives/win2016/entries/phenomenology/>
- Solomon, B. G., Klein, S. A., & Politylo, B. C. (2012). The effect of performance feedback on teachers' treatment integrity: A meta-analysis of the single-case literature. *School Psychology Review*, 41, 160-175.
- Sparks, D. (2013). Strong teams, strong schools. *Journal of Staff Development*, 34(2), 28-30.
- Storey, V. A., & Richard, B. (2015). The role of critical friends in supporting institutional change: Developing a collaborative environment. *Journal of Applied Research in Higher Education*, 7(2), 412-428.
- Tam, A. C. F. (2015). The role of a professional learning community in teacher change: a perspective from beliefs and practices. *Teachers and Teaching*, 21(1), 22-43.
- Taylor, E. W., & Cranton, P. (2013). A theory in progress? Issues in transformative learning theory. *European Journal for Research on the Education and Learning of Adults*, 4(1), 33-47.
- Taylor, E. W., & Laros, A. (2014). Researching the practice of fostering transformative learning lessons learned from the study of andragogy. *Journal of Transformative Education*, 12(2), 134-147.

- Tenenberg, J. (2016). Learning through observing peers in practice. *Studies in Higher Education*, 41(4), 756-773.
- Thorsen, C. A., & DeVore, S. (2013). Analyzing reflection on/for action: A new approach. *Reflective Practice*, 14(1), 88-103.
- Tikkamäki, K., Heikkilä, P., & Ainasoja, M. (2016). Positive stress and reflective practice among entrepreneurs. *Journal of Entrepreneurship, Management and Innovation*, 12(1), 35-56.
- Tripp, T. R., & Rich, P. J. (2012). The influence of video analysis on the process of teacher change. *Teaching and teacher education*, 28(5), 728-739.
- Trust, T. (2012). Professional learning networks designed for teacher learning. *Journal of Digital Learning in Teacher Education*, 28(4), 133-138.
- Trust, T., Krutka, D. G., & Carpenter, J. P. (2016). “Together we are better”: Professional learning networks for teachers. *Computers & Education*, 102, 15-34.
- Tseng, F. C., & Kuo, F. Y. (2014). A study of social participation and knowledge sharing in the teachers' online professional community of practice. *Computers & Education*, 72, 37-47.
- Tucker, M. (2014). *Fixing our national accountability system*. Washington, DC: The National Center on Education and the Economy.
- Vanblaere, B., & Devos, G. (2016). Exploring the link between experienced teachers' learning outcomes and individual and professional learning community characteristics. *School Effectiveness and School Improvement*, 27(2), 205-227.
- van Kruiningen, J. F. (2013). Educational design as conversation: A conversation analytical perspective on teacher dialogue. *Teaching and Teacher Education*, 29, 110-121.
- van Manen, M. (1977). Linking ways of knowing with ways of being practical. *Curriculum Inquiry*, 6, 205-228.

- van Manen, M. (1997). *Researching lived experiences: Human science for an action sensitive pedagogy* (2nd ed.). Walnut Creek, CA: Left Coast Press.
- Walsh, S., & Mann, S. (2015). Doing reflective practice: A data-led way forward. *ELT Journal*, 69(4), 351-362.
- Warwick, P., Vrikki, M., Vermunt, J. D., Mercer, N., & van Halem, N. (2016). Connecting observations of student and teacher learning: An examination of dialogic processes in Lesson Study discussions in mathematics. *ZDM Mathematics Education*, 48(4), 555-569.
- Wang, D., & Zhou, Y. (2013). Building a teacher professional learning community in a struggling school: A case study in Shanghai, China. Retrieved from http://repository.umac.mo/bitstream/10692/1719/1/9883_0_PLC_Shanghai_2013.pdf
- Way, A. K., Zwier, R. K., & Tracy, S. J. (2015). Dialogic interviewing and flickers of transformation an examination and delineation of interactional strategies that promote participant self-reflexivity. *Qualitative Inquiry*, 21(8), 720-731.
- Weiss, M. P., Pellegrino, A., & Frederick, J. B. (2017). Practicing collaboration in teacher preparation: Effects of learning by doing together. *Teacher Education and Special Education*, 40(1), 65-76.
- Woodman, A., Richard, J., & Maria, B. (2015). The effectiveness of peer review of teaching when performed between early-career academics. *Journal of University Teaching & Learning Practice*, 12(1), 2-11.
- Zimmermann, C., & Morgan, W. J. (2015). A time for silence? Its possibilities for dialogue and for reflective learning. *Studies in Philosophy and Education*, 35(4), 399-413.

Appendix A: Individual Professional Development Plan

Individual Professional Development Plan

Initial License

Year 1

Year 2

Year 3

(Summative evaluation by administrator required for teachers on Initial License or Year 3 of the evaluation cycle.)

Teacher Name	Building	Date	Names of Peer Review Members (2-6 members)

Specific SIP Goal(s) and/or District Strategic Plan Goal(s) to be addressed:					
Check the	Teaching Standard(s) addressed in this plan:				
	1. Enhance Student Achievement		4. Instructional Strategies		7. Professional Growth
	2. Content Knowledge		5. Monitoring Student Learning		8. Professional Responsibilities
	3. Planning and Preparation		6. Classroom Management		

Personal Professional Growth Plan			
Personal Goal:			
Action Plan:			
Dates:	Teacher Action:	Expected impact on teacher performance:	Data sources used to monitor impact:

Teacher Name and Date	Evaluator Name and Date

Copy to be placed in personnel file

I.P.D.P Form

Initial License

Year 1

Year 2

Year 3

Annual Update - Individual Professional Development Plan

Teacher Name	Building	Date

Teacher's Reflections:

Evaluator's Comments:

Teacher Name and Date	Evaluator Name and Date

Copy to be placed in
personnel file

I.P.D.P Form

Excerpt from the Negotiated agreement with [Location Information Redacted]:

Individual Professional Development Plan:

Every year, every professional teacher will complete an Individual Professional Development Plan (IPDP). He/she will determine a professional development goal(s) and meet with his/her evaluator in the first 45 (forty-five) days of the school year to seek approval for the selected goal(s). The achievement or progress toward the goal(s) may be discussed either at the end of the school year or in the following school year within the first 45 (forty-five) days of that school year. Modification of the plan after the initial approval may be done at any time by mutual agreement. The teacher and evaluator shall sign and date the modification.

This Article XI memorandum of understanding is to address new legislation requiring peer group reviews to be added for each teacher's performance review.

1. A school district shall provide for an annual review of each certified employee's performance. Year 1 and year 2 of the performance review is conducted by the peer group but is not in lieu of the IPDP process with the evaluator. Year 3 is conducted by the evaluator.
2. The peer group shall review all of the peer group members.
3. Peer groups should be made up of two to six professional colleagues reflecting common grade level, content area, certification or other previously established groupings of individuals. If the peer group has not been identified by the time the IPDP is reviewed with the administrator, the administrator will assist in identifying a peer review team.
4. Peer group reviews shall be formative and shall be conducted on an informal, collaborative basis that is focused on assisting each peer group member in achieving the goals of the teacher's individual professional development plan.
5. Peer review involves multiple authentic sources of data such as classroom visits, videotaped lessons, review of course materials and reflective conversations.
6. Confidentiality is maintained between peer group members and the certified employee being reviewed shall have exclusive rights to all documentation.
7. Content of peer reviews shall not be incorporated into the summative evaluation unless provided by the certified employee as documentation from other teachers.
8. Peer group reviews shall not be the basis for recommending that a teacher participate in an intensive assistance program, layoff, or termination of a teacher, or any other determination affecting a teacher's employment status.
9. Orientation to the peer group review procedures shall be conducted for all employees during preservice activities.
10. It is the goal of peer review to be completed within the teacher's normal scheduled day with the support of the building administrator. If substitute coverage is needed, contact the Teacher Quality (TQ) Committee.

Retrieved from [Website Information Redacted]

Used with permission from participating school district.

Appendix B: Peer Review Frequently Asked Questions

Peer Review FAQs – 10/2/13

1. **Can I be on a team of only 2?**
A: The recommendation is for a minimum of 3 but if there is no other teacher that works with your group of 2, you can refer your request to the District Resolution Team.
2. **Can I be on a team with teachers in other buildings?**
A: Yes. Content area/PLC teams may involve teachers from other buildings with a common professional learning goal.
3. **Do classroom observations have to be part of the Peer Review Plan?**
A: No. The guidance clearly states that, “Peer review involves multiple authentic sources of data such as classroom visits, videotaped lessons, review of course materials and reflective conversations.” A classroom observation is not required but used if appropriate to the team’s goal.
4. **Can our team focus on an approved book on best practices in the areas of intended work for our team?**
A: Yes. Book study conversations are an acceptable means of professional learning.
5. **Should our team be meeting during contract time?**
A: This is definitely the intent. The guidance states, “It is the goal of peer review to be completed within the teacher’s normal scheduled day and without substitutes.” If you encounter difficulty in scheduling this time, TQ funds might be requested to cover extended hours and/or substitutes.
6. **If this is my Year 3 Summative Evaluation, do I still participate with a Peer Review Team?**
A: Yes. In our District we are encouraging all certified staff to be a part of a peer review team each year. Some teachers will be formally evaluated by their administrator but should still work collaboratively with a peer team. The peer team can be a support for the teacher going through the summative evaluation with the administrator.

Retrieved from [Website Information Redacted]
Used with permission from participating school district.

Appendix C: Research Participant Consent Form

Participant Informed Consent for Doctoral Dissertation Research Study

Researcher:

Sandra Metzger
Postgraduate Dissertation
Concordia University-Portland, OR

Title of Project:

Signs of Learning and Motivation in High School Teachers' Reflective Dialogue

Introduction:

Thank you for your interest in taking part in this study. This form provides you with information so you can decide whether to participate in this study. Any questions you may have will be answered by the researcher or her supervisor. Once you are familiar with the information on the form and have asked any questions you may have, you may decide whether or not to participate. If you agree to participate in this study, please sign this form.

Purpose of the Study:

The purpose of this study is to identify and describe the interactional characteristics in reflective dialogue among high school teachers that show professional learning and self-directed motivation.

Permissions:

Your school district administration has given permission to the researcher to conduct this study as described below.

Required Procedures:

To assist in this research, you are being asked to agree to participate in three reflective sessions, which are described as follows:

Reflective Session 1: You will meet with your peer review team during contract hours to reflect on the progress of your Individual Professional Development Plans. This reflective dialogue will be recorded and transcribed. The researcher will be present as a nonparticipant observer. Session 1 will rely on the instructions provided by the school district for the peer review process. You will meet in the location typically used by your peer review team for meetings. Session 1 should take at least 30 minutes, but can go as long as your team determines.

Reflective Session 2: You will meet with your peer review team during contract hours to reflect on the transcript from Session 1. This reflective dialogue will be recorded and transcribed. The researcher will be present as a moderator. In Session 2, you and your peer review team members will be instructed to reflect on the reflective dialogue from Session 1 using a researcher-designed protocol. Session 2 should take at least 30 minutes, but can go as long as your team determines. You will meet in the location typically used by your peer review team for meetings.

Reflective Session 3: You will meet individually with the researcher to reflect on transcripts from Sessions 1 and 2. Using transcript data from Sessions 1 and 2, you will engage in reflective dialogue with the researcher, during which your own analysis of the data will be solicited, as well as an opportunity to check the analysis of the researcher. You will also answer the researcher's questions in a semi-structured interview regarding the transcript data and your perceptions of the reflective dialogue. This interview will take no longer than 90 minutes to complete and be conducted in your office or classroom at your school.

Conditions for Peer Review process:

During this study you and each participating member of your peer review team are expected to abide by any previously established team norms, as well as the following:

- Maintain confidentiality
- Avoid making judgements
- Allow each other the space to articulate thinking
- Take risks in learning

According to the Code of Professional Conduct and Ethics established by the

[REDACTED], an educator is in violation of Standard VI if he or she conducts professional business in such a way that exposes colleagues to embarrassment or disparagement (25.3 (6) d). Additionally, he or she is also in violation when intentionally disclosing confidential information (25.3 (6) h). Participation in this study is considered professional business and must be conducted in accordance to this code.

Use of the Data:

The findings will be used to form the researcher's dissertation. Excerpts from the transcripts may be used in the dissertation, but will not include any identifying information. The audio recordings from all three sessions will only be used to ensure accurate transcripts. Only you, the participating members of your peer review team, and the researcher will have access to the audio recordings. No recordings or transcripts will be provided to any other school employees.

Risks:

The researcher has and will take cautionary measures to minimize the risk of participating in this study. Although the procedures outlined in this consent form and the consent form itself are meant to provide you with anonymity, the researcher cannot guarantee that all participants will abide by the conditions. By participating in this study, you assume the same risk regarding confidentiality you would as a member of your peer review team outside of this study. Additionally, because this study is set in conditions which have the potential to generate

learning, you may experience discomfort within the process of reflection. This discomfort, however, carries with it the potential for meaningful learning and social change.

Compensation:

You will not receive any type of payment for participating in this study.

Sessions 1 and 2 can be conducted during your non-teaching contract hours as are allowed by your school district. Session 3 will be conducted outside of contract hours.

Possible benefits of the study:

As a participant in this study, you will personally learn more about reflective dialogue. Your increased awareness and understanding of reflective dialogue can improve your own reflective skills. Additionally, participating in this study as a team may strengthen your peer review team.

Statement of Privacy and Confidentiality:

In any publication based on the findings of this study, the data presented will contain no identifying information that could associate it with you, unless you specifically request to have your real name associated with your statements or responses.

Contact Information:

My telephone number is 319-540-4018.

My e-mail address is readgr8books@yahoo.com

Alternatively, you may wish to contact the researcher's supervisor, Dr. Christopher Maddox, at cmaddox@cu-portland.edu

Confirmation and consent:

- I confirm I am freely agreeing to participate in the research project of Sandra Metzger under the supervision of Concordia University-Portland.

- I understand that if I decide at any time that I no longer wish to take part in this project, I can notify the researcher and withdraw immediately. Withdrawal or refusal to participate will not affect your relationship with the researcher, the school, or the school district.
- I understand my personal information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act of 1998 and the [Location Information Redacted] Code of Professional Conduct and Ethics.
- I have a current Individual Professional Development Plan as required by the school district.
- I have read the information on what is required by my participation and I agree to participate according to the procedures and conditions described.
- I give permission for all three reflective sessions to be recorded and transcribed, understanding that the audio recordings will only be used to ensure the correct transcriptions. I understand I will have access to both the audio recordings and the transcripts.
- I understand this consent form is a contract and failure to comply with it, once I have signed it, will result in my termination from the study.

Participant signature: _____

Name: _____

Date: _____

Researcher signature: _____

Name: _____

Date: _____

Please keep this form for future reference.

Appendix D: Participant Instructions for Reflective Session 1

Participant Instructions for Reflective Session 1

Before participating in this session, please take time to review the instructions and support materials provided by your district regarding the practice of peer review.

- Individual Professional Development Plan

This is a template followed by an addendum. It can be retrieved from [Website Information Redacted].

- Peer Review Frequently Asked Questions

This document can be retrieved from [Website Information Redacted].

- 2016-2017 Preservice Training on Teacher Evaluations

This video can be retrieved from [URL Information Redacted]. The section on peer review can be found at 0:24 – 6:01 minutes.

During Reflective Session 1, please engage in a peer review process as described in the materials provided by your district.

During this session, you should follow any existing norms established by your peer review team, as well as the following:

- Maintain confidentiality
- Avoid making judgements
- Allow each other the space to articulate thinking
- Take risks in learning

Appendix E: Participant Instructions for Reflective Session 2

Participant Instructions for Reflective Session 2

Goal for Reflective Session 2:

The goal for this session can be stated as reflection *on* reflection.

Procedures:

- Each of you should begin with a typed copy of the transcript from Reflective Session 1.
- Please take time to read through the transcript individually before proceeding with the session.
- Each of you will have a turn to comment freely on the transcript data. After your comments, the rest of the team can engage in reflective dialogue related to your comments. Dialogue includes additional comments, questions, and answers to those questions.
- This session should take at least 30 minutes, but can last as long as you determine as a team.
- You should follow any existing norms established by your peer review team, as well as the following:
 - Maintain confidentiality
 - Avoid making judgements
 - Allow each other the space to articulate thinking
 - Take risks in learning

Appendix F: Interview Questions for Reflective Session 3

Definitions of Key Words (provided to interviewee)

Evidence: Words, phrases, interactions, or sequences of these which exemplify your experience.

Psychological effect: A resulting feeling, thought, or motivation.

Autonomy: Being in control of your own behavior (Deci & Ryan, 1985).

Connectedness: Being part of a social context, belonging to a group, and being attached to other people (Deci & Ryan, 1985).

Competency: The ability to both affect your environment and be effective in your roles or tasks; to master a task (Deci & Ryan, 1985).

Prompting Initial Thoughts (Kim & Silver, 2016)

What are you noticing?

What stands out to you as you read the transcripts?

What are your initial thoughts about this reflective dialogue?

Learning Through Reflection (Dewey, 1933; Mezirow, 1991)

Questions about learning:

In what ways did you experience learning in this reflective dialogue?

Were there any specific interactions within the conversation that you can point to that would evidence this learning?

What about this (*evidence identified by interviewee*) led to your learning?

What initiated or prompted this learning?

How would you describe the process of learning that you engaged in through the reflective dialogue? (*Encourage interviewee to represent this process orally, visually, or textually.*)

Can you describe the psychological effect of learning in this dialogue? How did you feel about having learned this?

Describe any changes you experienced in your perceptions or assumptions during the reflective dialogue.

What prompted these changes?

Were there any specific interactions within the conversation that you can point to that would evidence these changes?

Factors of Motivation (Deci & Ryan, 1985)

Questions about autonomy:

During the reflective dialogue, did you perceive a need to be autonomous?

Were there any specific interactions within the conversation that you can point to that would evidence this need for autonomy?

During the reflective dialogue, did you experience autonomy?

Were there any specific interactions within the conversation that you can point to that would evidence this experience of autonomy?

Questions about competency:

During the reflective dialogue, did you perceive a need to be competent?

Were there any specific interactions within the conversation that you can point to that would evidence this need to be competent?

During the reflective dialogue, did you experience competency?

Were there any specific interactions within the conversation that you can point to that would evidence this experience of competency?

Questions about connectedness:

During the reflective dialogue, did you perceive a need to be connected?

Were there any specific interactions within the conversation that you can point to that would evidence this need to be connected?

During the reflective dialogue, did you experience connectedness?

Were there any specific interactions within the conversation that you can point to that would evidence this experience of connectedness?

Appendix G: District Permission Request

January 26, 2017

RE: Permission to Conduct Research Study

Dear [Name Redacted]:

I am writing to request permission to conduct a research study with high school teachers in your district. This study is for completion of the degree of Doctorate of Educational Leadership with a specialization in Teacher Leadership at Concordia University in Portland, OR.

My study is entitled *Signs of Learning and Motivation during High School Teachers' Reflective Dialogue*. The purpose of my study is to identify and describe the interactional linguistic characteristics in reflective dialogue among high school teachers that show learning and factors of self-directed motivation. By analyzing multiple reflective dialogues using self-designed theory-driven codes and conversation analysis, I intend to describe the kinds of linguistic interactions within reflective dialogue that result in learning and create the conditions for motivation.

I have already requested permission to conduct my research study with two groups of high school teachers in their peer review teams who are part of the [Location Information Redacted]. However, I would also like permission for one of these groups to be composed of teachers who work at [Location Information Redacted]. I will recruit participants through an e-mail request using my private e-mail account. Volunteers will be fully informed and required to consent before participating (see attached Participant Informed Consent Form).

I am also requesting specific permission to conduct some or all of Session 1 and Session 2 (as described below) within the normal contract hours for participating teachers. I believe both

sessions can be a useful part of any existing designated professional learning or collaboration time.

If approval is granted, high school teachers who agree to participate will be asked to engage in the following procedures in three sequential sessions:

- Reflective Session 1: Participating teachers will meet with their peer review team during contract hours to reflect on the progress of their Individual Professional Development Plans. This reflective dialogue will be recorded and transcribed. I will be present as a nonparticipant observer. Session 1 will rely on the instructions provided by the school district for the peer review process. Session 1 should take at least 30 minutes, but can go as long as the team determines. Participating teachers will meet in the location typically used by their peer review team for meetings, usually a member's classroom.
- Reflective Session 2: Participating teachers will meet with their peer review team during contract hours to reflect on the transcript from Session 1. This reflective dialogue will be recorded and transcribed. I will moderate this session, but not engage in their reflective dialogue. In Session 2, the participating teachers will be instructed to reflect on the reflective dialogue from Session 1 using a self-designed dialogic protocol. Session 2 should take at least 30 minutes, but can go as long as the team determines. Participating teachers will meet in the location typically used by their peer review team for meetings, usually a member's classroom.
- Reflective Session 3: Participating teachers will meet individually with me to reflect on transcripts from Sessions 1 and 2. Using transcript data from Sessions 1 and 2, participants and I will engage in reflective dialogue, during which I will solicit their own analysis and interpretation of the data, as well as an opportunity to check my ongoing

analysis. Participants will also answer my questions in a semi-structured interview regarding the transcript data and their perceptions of the reflective dialogue. This interview will take no longer than 90 minutes to complete and be conducted in the teachers' office or classroom at their school.

All identifying information of the participants, the schools, the district, and the state will not be included in either my research proposal or final dissertation. Additionally, no costs will be incurred by the schools, the district, or individual participants.

The findings from this study may provide teachers and school leaders with insight into the lived experiences of high school teachers engaged in the interaction of reflective dialogue. The results may help to identify the specific language *of* reflection and language *for* reflection in reflective dialogue that evidence learning, as well as the satisfaction of the needs for competency, connection, and autonomy. The findings will include interactional data excerpts expressed in transcriptions from observations, focus groups, and interviews, which can be used for data-led approaches to reflective dialogue. The research design may also serve as a model for those interested in investigating the reflective dialogue of a particular group or as a model for those interested in engaging in reflective dialogue for transformational learning. The findings from this study will contribute specific interactional data to a larger body of knowledge regarding the practice and facilitation of reflective dialogue among teachers.

Your approval to conduct this study will be an important part of the proposal I submit to the Institutional Review Board at Concordia University. I will provide you with a copy of the completed proposal. If the Institutional Review Board requests any changes in my research design, you will be notified immediately. You may contact me at any time to discuss any questions or concerns you have at [REDACTED]

If you agree, kindly return a signed letter of permission on your institution's letterhead acknowledging your consent and permission for me to conduct this study as outlined in this request.

Sincerely,

Sandra Metzger

Concordia University - Portland

Appendix H: District Approval Letter

[Participating District's Letterhead Redacted]

January 30, 2017

To Whom It May Concern:

I give full consent and permission for Sandra Metzger to conduct and complete a research study, *Signs of Learning and Motivation during High School Teachers' Reflective Dialogue* in the [Location Information Redacted].

Sincerely,

[Printed Name and Signature Redacted]

Deputy Superintendent

Appendix I: Participant Recruitment E-mail

(Sent from my personal e-mail to e-mail addresses of high school teachers provided by the participating district.)

Dear high school teacher,

I would like to invite you to participate in my study of teachers' reflective dialogue. I am looking for two peer review teams who are interested in volunteering for three sessions of reflective dialogue over the next eight weeks. The first two sessions would involve your whole team and can be done during non-teaching contract hours. The third session would be a one-on-one interview with me lasting 90 minutes at a time outside of regular contract hours. All the procedures and expectations are outlined in detail in the attached Research Participant Consent Form. Your participation is voluntary and completely confidential. No personally identifying information will be included in my dissertation.

As you may know, the district requires each teacher to create an Individual Professional Development Plan (IPDP), which includes a peer review team of two to five members. As you approach the end of the school year, now is the time to reflect with your team on your progress toward your individual goals as stated in your IPDP. If you and at least some of the members of your peer review team would be willing to engage in this reflection as part of my study, please contact me this week.

My study will provide a description of teachers' experiences with the dialogic interactions (the words that are used and how they are used) within reflective dialogue. I have received approval for this study from the Institutional Review Board at Concordia University – Portland.

There are several reasons you may want to volunteer to participate. As a participant in this study, you will personally learn more about reflective dialogue. Your increased awareness and understanding of reflective dialogue can improve your own reflective skills. Additionally, participating in this study as a team may strengthen your peer review team.

If you are interested in participating, please read the attached Research Participant Consent Form and discuss this opportunity with the members of your peer review team. If you have any questions regarding your potential participation or the study, please contact me at 319-540-4018. Please communicate your interest in participating in this study by DATE, either as a reply to this e-mail or by calling me at 319-540-4018.

Thank you for your consideration,

Sandra Metzger

Doctoral Candidate, Concordia University – Portland

Appendix J: Typical Peer Review Survey

This survey was used prior to recruiting participants. The purpose of this survey was to generate a description of a typical peer review team. This survey was designed to poll high school teachers who are required to participate in peer review. I found the mode for each data set in the survey to determine typicality (Adams & Lawrence, 2014).

The survey was designed using the Qualtrics online tool for creating and managing surveys.

The survey was constructed as follows.

Survey title: Typical Peer Review Teams

Survey introduction: In an effort to describe a typical peer review team at the secondary level, I need to collect data about existing peer review teams. Your responses are anonymous. Thank you for contributing to my research.

Question 1:

Are you a certified high school teacher currently teaching in a high school setting?

Possible responses:

Yes, No

(Only data from surveys with a “Yes” will be analyzed.)

Question 2:

Including yourself, how many members are in your 2016-17 peer review team?

Possible responses:

2, 3, 4, 5

(The Individual Professional Development Plan template states teams must have two to five members.)

Question 3:

Which peer group best describes your peer review team for 2016-2017?

Possible responses:

PLC, Content Team, Book Study Group, PLN, Other

Question 4:

How many years have the majority of your peer review team members been together as a peer review team?

Possible responses:

1 (first year together), 2, 3, 4, 5 or more

Question 5:

How often does your peer review team meet?

Possible responses:

Once per year

2-4 times per year

More than 5 times per year

We do not meet

Question 6:

What is the typical setting of your peer review team meeting?

Possible responses:

At school during contracted hours

At school outside of contracted hours

Other locations outside of contracted hours

Question 7:

To what extent do you agree or disagree to this statement?

I understand the practice of peer of review as it has been described by my district.

Possible responses:

Strongly Agree, Agree, Somewhat Agree,

Somewhat Disagree, Disagree, Strongly Disagree

Question 8:

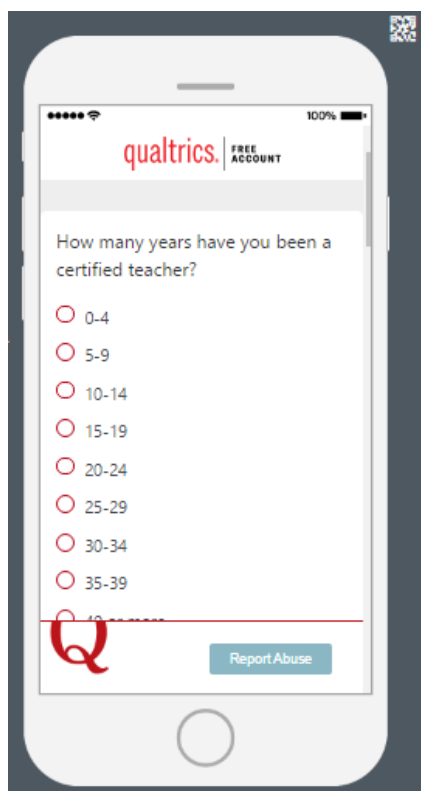
How many years have you been a certified teacher?

Possible responses:

0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40 or more

(To find typicality from the data set generated from this question, both the mean and the mode will be calculated.)

The settings for this survey were set to prevent ballot box stuffing and there was an expiration date set following IRB approval and subsequent release of the survey. The survey appeared in the following formats and could be completed on a smart device or computer.



qualtrics. | FREE ACCOUNT

How many years have you been a certified teacher?

- ☐ 0-4
- ☐ 5-9
- ☐ 10-14
- ☐ 15-19
- ☐ 20-24
- ☐ 25-29
- ☐ 30-34
- ☐ 35-39
- ☐ 40 or more

To what extent do you agree or disagree to this statement?

I understand the practice of peer review as it has been described by my district.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Somewhat agree
- ☐ Somewhat disagree
- ☐ Disagree
- ☐ Strongly disagree

What is the typical setting of your peer review team meeting?

- ☐ At school during contracted hours
- ☐ At school outside of contracted hours
- ☐ Other locations outside of contracted hours
- ☐ At other district locations during contracted hours

Qualtrics provided this printout of the survey.

Typical Peer Review Team

Q8 How many years have you been a certified teacher?

- ☐ 0-4 (1)
- ☐ 5-9 (2)
- ☐ 10-14 (3)
- ☐ 15-19 (4)
- ☐ 20-24 (5)
- ☐ 25-29 (6)
- ☐ 30-34 (7)
- ☐ 35-39 (8)
- ☐ 40 or more (9)

Q7 To what extent do you agree or disagree to this statement? I understand the practice of peer review as it has been described by my district.

- ☐ Strongly Agree (1)
- ☐ Agree (2)
- ☐ Somewhat agree (3)
- ☐ Somewhat disagree (4)
- ☐ Disagree (5)
- ☐ Strongly disagree (6)

Q6 What is the typical setting of your peer review team meeting?

- ☐ At school during contracted hours (1)
- ☐ At school outside of contracted hours (2)
- ☐ Other locations outside of contracted hours (3)
- ☐ At other district locations during contracted hours (4)

Q5 How often does your peer review team meet?

- ☐ Once per year (1)
- ☐ 2-4 times per year (2)
- ☐ More than 5 times per year (3)
- ☐ We do not meet (4)

Q4 How many years have the majority of your peer review team members been together as a peer review team?

- ☐ 1 (first year together) (1)
- ☐ 2 (2)
- ☐ 3 (3)
- ☐ 4 (4)
- ☐ 5 or more (5)

Q3 Which peer group best describes your peer review team for 2016-2017?

- ☐ PLC (1)
- ☐ Content Team (2)
- ☐ Book Study Group (3)
- ☐ PLN (4)
- ☐ Other (5)

Q2 Including yourself, how many members are in your 2016-2017 peer review team?

- ☐ 2 (1)
- ☐ 3 (2)
- ☐ 4 (3)
- ☐ 5 (4)

Q1 Are you a certified high school teacher currently teaching in a high school setting where peer review teams are a required part of your Individual Professional Development Plan?

- ☐ Yes (1)
- ☐ No (2)

Appendix K: Self-Designed Theory-Driven Codes

Code	Theoretical element	Example indicators from the literature
Systematic	Systematic reflection (Dewey, 1933)	<p>Use of protocol (Charteris & Smardon, 2014; Doppenberg et al., 2012; Moore & Carter-Hicks, 2014; Walsh & Mann, 2015)</p> <p>Evaluations of data (Walsh & Mann, 2015)</p> <p>Inviting feedback (Tam, 2015)</p>
Problem	Problem-posing (Dewey, 1933; Mezirow, 1991)	<p>Data and evidence as problem (Walsh & Mann, 2015)</p> <p>Asking for help while stating a problem (Trust, 2012)</p> <p>Elaborating on and clarifying problems (Tam, 2015)</p>
Testing	Hypothesis testing (Dewey, 1933) Instrumental learning (Mezirow, 1991)	<p>Trial and error (Hilden & Tikkamäki, 2013)</p> <p>Focus on external products and practices (Brendefur et al., 2014; De Neve et al., 2015)</p>
Discomfort	Discomfort and uncertainty (Dewey, 1933; Mezirow, 1991) Fear, shame, guilt (Mezirow, 1991)	<p>Silence (Zimmermann & Morgan, 2015)</p> <p>Not wanting to offend (Hallam et al., 2015)</p> <p>Articulated anxiety (Bell & Thompson, 2016)</p> <p>Embracing failure or mistakes (Nicolson, 2013; Trust et al., 2016)</p>

Language	Language for meaning-making (Dewey, 1933; Mezirow, 1991)	Rewording (Ramos-Rodríguez, Martínez, & da Ponte, 2016) Consistent terminology (Kutsyuruba et al., 2015)
Certainty	Certainty of beliefs, balance (Dewey, 1933; Mezirow, 1991)	Self-efficacy (Harper & Nicolson, 2013) Resiliency (Cochran-Smith, 2012) Inner sense of vocation (Gu & Day, 2013) Self-actualization through understanding of personal value system (Biktagirova & Valeeva, 2014)
New Meanings	Intentional consideration of new meanings (Mezirow, 1991)	Questions about products, practices, and perspectives (Danielson, 2015; Devlin-Scherer & Sardone, 2013) Changes in beliefs and attitudes (Brendefur et al., 2013; Harper & Nicolson, 2013) Challenge perspectives (Hepple, 2012) Introspection (Evans, 2012)
Consensus	Consensus (Mezirow, 2000)	Best collective judgement (Mezirow, 2000)
CR-Content	Critical reflection of content of reflection (Mezirow, 1991)	Discussing feelings (Bell & Thompson, 2016) Examination of the setting (Farrell & Jacobs, 2016)
CR-Process	Critical reflection of process of reflection (Mezirow, 1991)	Metacognition (Postholm, 2012; Prytula, 2015)

		Mutual learning about reflection (Tam, 2015)
CR-Premise	Critical reflection of premise of reflection (Mezirow, 1991)	Examine professional purpose (Patti et al., 2012)
Memory	Memory blind spots (Mezirow, 1991)	Surface the invisible (Charteris & Smardon, 2013)
Autonomy	Autonomy (Deci & Ryan, 1985)	<p>Team-supported individual self-direction (Bell & Thompson, 2016)</p> <p>Providing space (Charteris & Smardon, 2014; Patti et al., 2012)</p> <p>(Anti-autonomy) Proceduralism (Finefter-Rosenbluh, 2016)</p>
Connected	Connectedness/Belonging (Deci & Ryan, 1985)	<p>Professional refuge (Trust et al., 2016)</p> <p>Inviting each other to engage (Brabham et al., 2016)</p> <p>Group perspectives (Akoyl & Garrison, 2014)</p> <p>Interpersonal connection (Tseng & Kuo, 2013)</p> <p>Confidentiality (Finefter-Rosenbluh, 2016)</p> <p>Beyond isolation (Bell & Cooper, 2013)</p> <p>Accountability to each other (Darling-Hammond, 2013; Pullin, 2013)</p> <p>Understanding each other's perspectives (Moore & Carter-Hicks, 2014)</p>

		<p>(Anti-connection) Forced collaboration (Duyar et al., 2013)</p> <p>Use of student achievement data (Mausethagen, 2013)</p>
Mastery	<p>Mastery/Competence (Deci & Ryan, 1985)</p> <p>Perfected performance (Mezirow, 1991)</p>	<p>Professional expertise (Fullan et al., 2015; Trust, 2012)</p> <p>Love for learning (Kyndt et al., 2016; Tucker, 2014)</p>

Appendix L: Transcription Conventions Guidelines for Conversation Analysis

Transcription Conventions Guidelines for Conversation Analysis

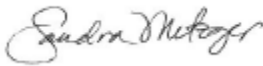
- [Overlapping talk; multiple people speaking at once.
- = Latching talk; the second speaker follows the first speaker with no pause or time gap between them.
- (.5) Pause in talk: length of pause is indicated. (example shown)
- (.) Micro-pause; less than 0.2 seconds
- A cutoff or self-interruption.
- (()) Transcriber's description of events.
- () Doubt or uncertainty on the transcriber's part

(based on guidelines suggested by Sacks (1984))

Appendix M: Statement of Original Work

I attest that: 1. I have read, understood, and complied with all aspects of the Concordia University-Portland Academic Integrity Policy during the development and writing of this dissertation. 2. Where information and/or materials from outside sources has been used in the production of this dissertation, all information and/or materials from outside sources has been properly referenced and all permissions required for use of the information and/or materials have been obtained, in accordance with research standards outlined in the Publication Manual of The American Psychological Association.

Digital Signature

A handwritten signature in black ink that reads "Sandra Metzger". The script is cursive and fluid, with the first name "Sandra" and last name "Metzger" clearly legible.

Sandra Metzger

10/15/17